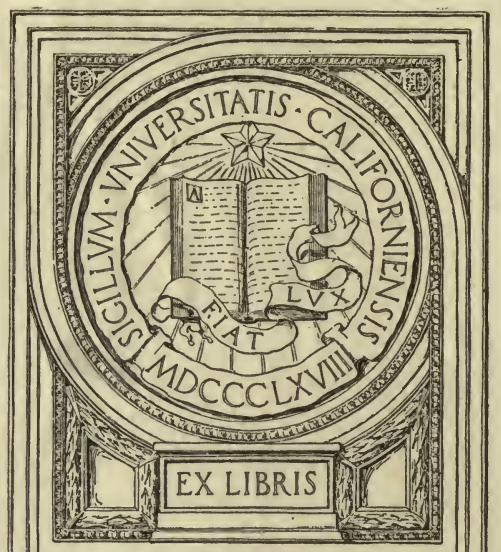
CANNED FOODS

HOW TO BUY

and

HOW TO SELL



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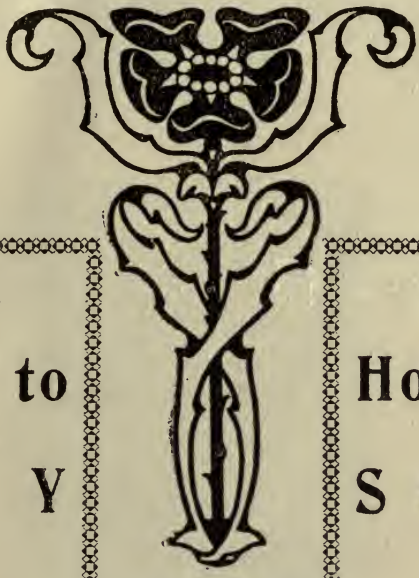
CANNED FOODS



How to BUY

How to SELL

Statistical and Practical Information about the

CANNING INDUSTRY

By JOHN A. LEE

A practical book written by a practical man for the use of other practical men

PUBLISHED BY
"THE Canning TRADE" (The Journal of the Industry)
Baltimore, Maryland

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The Southern Wholesale Grocers' Association

The National Canned Food and Dried Fruit Brokers' Association

The Grocery and Canning Trade Press

OF THE UNITED STATES

389423

PREFACE

Several years ago I began to write and manifold a series of lectures for the information of about one hundred traveling and city salesmen employed by a large wholesale grocery house. For this house I was then a department manager and buyer.

Some copies of these lectures were sent to personal friends. Soon requests for the series began to be received from them and their friends.

I then printed on a multigraph several hundred sets of the series and distributed them to those wholesale grocers who subscribed for them. Apparently this did not satisfy the demand, as, since then, I have had numerous requests for the series and suggestions that they be published in book form at a more popular price. These suggestions I concluded to adopt, hence this book.

The book contains much more matter—and more valuable matter—than the series of lectures, for I have broadened my investigations and added to my experience since the lectures were first written. That in the lectures which seemed good I have revised carefully in the light of my wider experience.

I have also added to the book statistical and practical information—such information as I at times have greatly needed, and which I had much difficulty in securing and keeping convenient for reference in a compact form.

I have not attempted to write a scientific book, as it is not intended to teach manufacturers how to prepare canned foods.

It *is* intended, however, to inform canners how their products are marketed and distributed and what qualities are desirable and salable.

Since I wrote the series of lectures I have been in the canned food brokerage business, and was chosen by the canners, grocers and brokers of the United States to manage "National Canned Foods Week (1913)."

My point of view is, therefore, broader. More than this, my appreciation of the great industry which puts the June garden into the January pantry, and preserves the food supply of the world, in times of abundance, to feed its people in times of scarcity, is widened. I have tried to crystallize that enlarged view and that appreciation in my revision of the lectures and in the added material.

I hope that my thirty-five years of experience as a merchant and as a buyer and seller of canned foods have qualified me to impart something of benefit to my co-workers.

There are many—very many—who know as much (or more) about the subjects treated as myself, but who have never had the time to put their knowledge into compact form for publication. To that class I present my apologies and assurances of esteem, with the hope that the volume may contain for them some reminiscences and prove convenient as a book of reference.

THE AUTHOR.

For List of Contents See Back of Book.

CHAPTER I.

THE BUYER.

Volumes have been written about salesmen, and salesmanagers, and upon the subject of salesmanship.

Little has, however, been written about buyers or the buying methods of a business.

There is a verse in the Bible [Prov. 20-14], which describes a cunning and boastful buyer, viz.: "It is nought, it is nought, saith the buyer; but when he is gone his way, then he boasteth."

This method of depreciating an article offered for sale is still practiced, as well as the boasting of the buyer after the goods have become his.

If one were to attempt to describe methods and manners used in buying, or even to classify buyers, he would have an interminable task. No two buyers are precisely alike in their methods, and all are, to some extent at least, different each from the other. The best one can do is to describe a few types, not for the purpose of ridicule or idle discussion, but that all may be benefitted, and then, if possible, to fix certain rules or methods used by the highest type, i. e., by ideal buyers, as standards to follow.

A cunning and egotistical buyer, who followed the method described by the verse quoted from the Bible, would, in these modern times, be regarded as ignorant, unfair, undignified, untruthful and dishonest. He would also be considered as conceited.

Sellers would soon begin to ignore and avoid such a man, and instead of finding sellers seeking him, he would have to seek opportunities to buy. His usefulness as a buyer would thus have departed, for there would be no seller so poor as to do him reverence.

The buyer who is arrogant or insolent to those who call upon him, or inconsiderate of their convenience, or who wastes their time by giving attention to trivial matters of detail while keeping them waiting, is unwise. He will gradually but surely lose the respect of sellers. His competitors, who treat commercial travelers or brokers fairly, courteously, candidly and patiently, and who deport themselves modestly, will secure friendship and respect, and will get all the bargains and good trades.

The success of a business rests largely upon the temperament and character of its buyers, and the importance and profitable features of the various departments in a house are frequently statistically photographic of the methods of the buyers in charge.

If a buyer is unfair, discourteous, inconsiderate, and arrogant with those of whom he buys, his manner will be similar toward those whom he depends upon to sell the goods for him, and it will usually

be found that a buyer who has not the confidence, respect and friendship of sellers, is unpopular and is disliked by his salesmen. Such a combination spells ruin and failure, for his salesmen are averse to working with him and do not enter upon their duties with zeal and enthusiasm.

There is no more trying and wearing position than that of a department manager and buyer for a large house. He is held responsible not only for the careful purchasing of the proper goods, but also for their prompt sale; and he must personally attend to an enormous amount of detail. From this no assistant, stenographer or clerk can relieve him. To sit patiently as some buyers do, for eight or ten hours a day, listening to the endless and tireless importunities of sellers, four-fifths of whom they cannot patronize, is soul-wearying and body, nerve and mind torturing. Yet, to play the game, buyers must treat sellers considerately and give each an audience.

A buyer cannot continue many years in such employment without detriment to his health and without shortening the years of his life.

A buyer who is untruthful is one of the most despicable of his class. He should consider how quickly he himself learns to despise and ignore a liar, among the sellers who call upon him.

A buyer who is in the habit of making unreasonable and unfair claims is more injurious to his house and its interests, in these days of modern business methods, than is a reputation for slow payment.

It would surprise the proprietors of some houses, and the buyers themselves, to know to what an extent brokers are instructed not to offer goods to certain houses, at any price, or on any terms, because of their habit of unfair rejections.

And now for the ideal buyers—and there are many of them. I have in my mind many such to whom that term and such a description will aptly apply.

A buyer, to be ideal, should be fair, courteous, and considerate. He should have his temper under such control that he at all times will appear dignified and attentive.

He should be prompt and quick and positive in his decisions in buying, in declining to buy, or in suggesting that the offerings be called to his attention again, after he has investigated the market.

He should not ask that unreasonable offers be made, as he thereby himself loses prestige and he also hurts the salesman in the estimation of his principals.

In accepting or rejecting goods he should be fair, making due allowance for unimportant and unavoidable variations in quality beyond the control of the manufacturer.

He should "put himself in the other fellow's place" and look at the matter from both sides before rejecting goods. This requires that he be always ready and willing to arbitrate.

He should be careful to take and keep exact and accurate signed memoranda of offers or purchases, and he should insist that the seller be furnished with a copy or duplicate.

He should not permit his time to be wasted by social conversation or by frivolities; he should see that sellers receive prompt attention, and he should be regardful of their time as well as of his own.

He should prepare for himself a litany something like the following, and he should repeat it devoutly each morning before beginning his day's work, viz.:

From the blackguard and indecent storyteller, good Lord deliver me!

From the liar and braggart, Lord preserve me!

From the temptation to speculate, good Lord deliver me!

From the man who wants to confide his troubles to me, Lord preserve me!

From the man who has memorized his story and insists upon repeating it to me like a parrot, good Lord deliver me!

From the man who wants to relate his autobiography to me and to try to claim relationship with me, Lord preserve me!

From the man who gives away poor cigars and insists that I light them, Lord preserve me!

From the man who doesn't know his own goods and thinks he does, Lord deliver me!

From the man who thinks that mere persistency and tenacity will sell goods without their being backed up by information and intelligence, please, Lord, preserve me!

From the man or woman who tries to sell me goods not needed or not suitable, because of relationship or personal friendship, sympathy or need, Lord deliver me!

Help me, Lord, to be steadfast to my trust and firmly to resist all temptation. Amen."

CHAPTER II.

A BRIEF HISTORY OF CANNED FOODS.

More than one hundred years ago, in 1795, a French scientist, Nicholas Appert, discovered that fresh food hermetically sealed, and sterilized by exposure to a high degree of heat, would keep fresh, sweet and wholesome for years. That started the industry of canning foods in times of abundance to be used in times of scarcity.

Before that discovery enormous quantities of food were allowed to waste and rot because men did not know how to save it and to supply it to millions of people elsewhere in the world who were starving for the need of it.

All that is changed now, and there is very little of the wicked and foolish waste that then prevailed. Wherever there is a surplus of fresh food, a cannery is to be found; and the food is put into cans, cooked in the cans by steam heat, and kept good for years.

There is nothing secret in the process of canning food. Nothing whatever is used but the power of heat to sterilize and prevent fermentation. Preservative drugs or other preparations can not be used.

They would be worse than useless, as they would destroy the natural flavor. Both would be illegal and would subject canners to prosecution, and the goods to confiscation and destruction under United States law and the laws of the various States. The label must tell the truth. Nothing is needed or used in preparing canned foods but "cooking in the can."

This discovery of canning by heat and the development of the industry are some of the greatest boons ever given by Providence to mankind. It puts the June garden into the January pantry.

It places the fresh fruits of the tropics on the table of the Laplanders, and fresh salmon from the Behring Sea upon the bill of fare of Havana hotels.

The modern cannery is more sanitary than a dainty woman's kitchen, because it is constructed on strictly sanitary principles and kept clean by the use of hot water and live steam. The contents of the cans—tomatoes, peas, string beans, fruits of all kinds—are gathered when at the proper maturity or ripeness, in the vicinity of the canneries where grown, and are washed, cleaned, and prepared almost altogether by machinery without being touched by hands.

Being packed fresh near the gardens, orchards, waters and farms, canned vegetables, fruits, fish, sardines and meats have the tenderness and fine flavor which is not retained by such articles when they are shipped long distances and openly exposed to the air or to dust, odors and decay.

Then the convenience of canned foods is so pleasant. No washing, cleaning, peeling, scaling, stringing or cooking is necessary. Most canned foods are ready for use "right out of the can." Some require heating and seasoning. Fruits do not even require that much preparation. They are nearly all "ready for use" instantaneously.

A great variety of canned foods is now available at every retail grocery store, enabling a family to prepare at a moment's notice a meal not to be excelled in quality at the finest restaurant or by the finest cooks.

All the following kinds of canned foods are now purchasable at moderate prices at retail groceries. They represent an industry of world wide economy, viz.:

Vegetables—Asparagus, Lima Beans, Pork and Beans, Green String Beans, White Wax Beans, Red Kidney Beans, Beets, Carrots, Corn, Okra, Peas, Pumpkin, Sweet Potatoes, Sauer Kraut, Spinach, Succotash, Tomatoes, Mushrooms, Cucumbers, Pie Plant, Squash, Hominy, Olives, Dandelions, Cauliflower.

Fruits—Apples, Apricots, Blackberries, Blueberries, Figs, Cherries, Crabapples, Grapes, Gooseberries, Loganberries, Peaches, Pears, Pineapple, Prunes, Plums, Raspberries, Strawberries, Apple Butter, Apple Sauce.

Fish—Clam Chowder, Clams, Codfish, Lobsters, Oysters, Mackerel, Herring, Salmon, Sardines, Tuna Fish, Green Turtle, Terrapin Shrimps, Crabs, Fish Roe, etc.

Meats—Deviled and Potted Ham, Tongue, Sliced Dried Beef, Mutton, Veal, Corned Beef Hash, Sausages, Chile-Con-Carne, Tamales, Boned and Potted Chicken.

Sundries—Soups of all kinds, Condensed Milk, Spaghetti, Macaroni, Plum Pudding, Oatmeal, Mincemeat, etc.

CHAPTER III.

CLEAN— ECONOMICAL—WHOLESOME.

A dainty housekeeper likes to know that the food she puts upon her table is clean.

Before vegetables or fruits are packed in tin cans they are brought fresh from the fields (which are usually nearby), carefully washed and prepared with plenty of hot and cold water, and then put into the cans.

The bright new tin cans are carefully washed by a machine that rinses them out with hot water and steam so that no dust or foreign substance can remain inside.

Modern canneries are equipped with sanitary floors and drainage, and are thoroughly washed with hot water and live steam after each day's work. All waste or debris is carted away to be used to fertilize the fields.

Most of the preparation is done by automatic machinery. Peas in canning are never touched by human hands. Tomatoes are peeled by hand, as no machine has ever been invented that will do that work. Corn is pulled from the stalk by hand, but is husked by machinery and is not again touched. Even the labels are put on the cans by a machine.

Most fruits are peeled by machine, and thorough and absolute cleanliness is not only insisted upon in modern canneries, but is essential, for canners well know that the packing of any but strictly fresh and cleanly vegetables, meats, fish and fruits would be unwise and unprofitable.

Canned foods are wholesome—absolutely so. They are protected from contamination, dust, dirt, odors and foul air by being sealed in air-tight cans.

Nothing whatever is used in canning except heat, which is the great natural sterilizer. Canned fresh foods are sealed and cooked in the cans and subjected to a heat of from 220 to 260 degrees, Fahrenheit, after the cans are sealed. Consequently they need but little, if any cooking, when the cans are opened. Warming the can, before opening, in hot water, is usually sufficient.

No preservatives, no antiseptics, no drugs, nothing but heat is used; sometimes sugar or syrup or a little salt is added, but that is to make the goods palatable, not to preserve them.

Nothing but heat is necessary. It is a reliable, cheap and wholesome preservative, and no canner ever thinks of using anything but pure, simple heat with which to sterilize his canned foods. He would be foolish to use chemical preservatives. It would be illegal and is prohibited by both United States and State laws. Besides, it would cost more and be less reliable, should he attempt to use any other method than heat. Consequently, canned foods are the most wholesome foods known.

When one eats, the food selected should be nutritious and have the power to support life and health. There are no foods more nutritious than canned meats, fish, vegetables, fruits, soups, etc. They are far more so than foods in other forms or than cold storage products because the natural flavor, succulence and appetizing features are retained; those qualities go into the tin container and stay there until the can is opened.

Now for the great problem of the day. Canned foods are economical. In these days, when salaries and wages remain as formerly, and when the purchasing power of the dollar has so greatly decreased,

and in addition, because the demand for food exceeds the supply, foods have moved gradually higher and higher and the cost of living has, with many, become a serious problem. Here is a comparison of the retail prices of food of the same equivalent values on this day, September 1st, 1913, in the Chicago market, where this chapter was written, viz.:

Half dozen eggs	$ .16	
The equivalent of 1 No. 2 can of corn		$ .10
Half peck apples	.20	
The equivalent of 1 No. 3 can of apples		.10
One pound rib beef	22	
The equivalent of 1 No. 1 can of salmon		.15
Half peck sweet potatoes	.20	
The equivalent of 1 No. 3 can sweet potatoes		.12
Totals	$ .78	$ .47

These prices are for the very best qualities of canned foods, are made on just a few items, for lack of space, and the comparison as equivalent value is fair and reasonable. Note the enormous saving! The difference is between 47 cents and 78 cents, and this comparison can be carried through the line of canned foods practically. Nearly forty per cent. of money saved, and the canned foods are prepared and ready for use.

The secret of the comparatively far cheaper price of canned foods as contrasted with cold stored or dried foods is that they are canned at the places where grown in times of greatest abundance without waste from rot or spoilage, and without shrinkage from evaporation. After canned foods are in the cans, it costs but little to carry or keep them as they are dependable and will remain until used just in ordinary storage.

CHAPTER IV.

CANNED PEAS.

This vegetable is the third in importance for canning purposes in the United States and one of the great canned food staples. Peas are of great historical antiquity and have been cultivated from time immemorial—having been traced back in the history of the world until the time when the records of mankind are forever lost.

It has not been many years since canned peas were chiefly imported from France and regarded as a luxury. Beautifully graded as to size, tenderness and beautifully green from the use of salts

of copper, they were good to look upon but about as free from natural flavor as it would be possible to make them.

The pure food laws, requiring all coloring matter used to be named on the label or entirely prohibiting it, have ruined the French or imported pea business; and beside our domestic product of natural color is of superior quality to the imported, and the color was all that sold the imported peas.

The packing or canning of peas is of wide extent as an industry in the United States. The plant is hardy and of general growth; but, in order to obtain tenderness and sweetness of flavor, slow growth and ripening are essential, as well as a good soil and cool, moist, steady temperature.

This combination appears to be attained most nearly in the country surrounding the Great Lakes of the northern United States, which accounts for the pre-eminence of Wisconsin, New York and Michigan as well as Northern Ohio and Northern Indiana as pea canning sections.

Great improvements have been made in the methods of pea canning in a few years past. Picking by hand from the vines and shelling by hand, most laborious and expensive methods, have been superseded by inventive genius, and pea vines are now cut with a mowing machine like hay. Vines and all are taken to machines called viners, these thrash the peas out of the pods, like wheat from a thresher, and the graders, binders, blanchers, and the regular machinery for canning vegetables, do the work so automatically that it can be said that canned peas are not touched by human hands at all.

In planting, peas are either sown like wheat, broadcast, or are drilled in in rows. Fields are planted at intervals so that the crop will not all mature at once.

Pea seed are of two general types, namely, the smooth, round pea which is known as the Alaska variety, the most popular kind because of its appearance and comparatively smaller size; and the sweet varieties, the best known kinds of the latter type being the Horsford-Advancer and the Admiral.

Peas of the Alaska variety, on account of their being more sightly and of smaller size, are more popular with those "who eat with their eyes," and who cater to that practice. Hotels, caterers and restaurants prefer them on that account and because they are firmer and will "stand up" better under hard cooking than the sweet varieties. The latter average more of the larger sizes and, on account of their oval shape, will not grade or look as small as the Alaska variety; but they far excel the Alaska variety in tenderness and natural sweetness of flavor.

The Alaska variety is usually of earlier growth than the sweet varieties, which are several weeks later in maturing.

After passing through the viners or separating hullers, peas are conveyed by belt buckets to the briner. This is a large box filled with a salt water solution. In this brine the firm, tough or hard peas, from their specific gravity, sink to the bottom and are withdrawn and packed as standards. The more tender peas, being lighter than the salt solution, float on its surface and are carried by the blades of an endless screw over the edge of the box into belt buckets.

After the briner, peas go to the rotary separators—large perforated cylinders which divide them into the following sizes, viz.:

No. 1 size, which is 9-32 of an inch in diameter.
No. 2 size, which is 10-32 of an inch in diameter.
No. 3 size, which is 11-32 of an inch in diameter.
No. 4 size, which is 12-32 of an inch in diameter.
No. 5 size, which comprises all larger than 12-32 of an inch in diameter.

Grading is not entirely uniform as to size, and New York packers run their sizes a little larger than Wisconsin and Michigan packers do.

After leaving the graders, the shelled peas are carried through a line of cleaning machines and washers over a packing belt, past a line of women, who remove blacks, yellows, or broken peas or pieces of vines, pods or leaves, and then through a blanching machine, which operates as a preliminary cooker or exhaust. From here they go into the cans, past the cappers and sealers, into the processing kettles and cooking tanks, and thence to the labeling machines and cases, almost untouched by human hands.

Peas are filled into the can by an automatic machine which puts into each can an equal quantity, and a syrup composed of filtered water, salt and granulated sugar.

New York packers are experienced and exceedingly careful in canning peas. In addition they grade the peas more uniformly and accurately, on the average, than the packers of other states.

Wisconsin is a great pea-packing State and its pack usually excels that of Michigan in style and appearance, owing to the tougher skin of Wisconsin peas, which prevents them from cracking or breaking open while going through the process; but peas packed in the State of Michigan are highly esteemed for tenderness and flavor. Southern grown-peas are usually of inferior style and flavor.

The points of excellence in canned peas are easily discernible by aid of the eyes, the teeth and the taste, but the defects require a more close and careful study. Clouded or muddy liquor may be due to a variety of causes, the chief of which is overcooking, or a failure to cool the cans quickly after the cooking in the processing kettles.

In some seasons, when an unusual proportion of dry weather prevails, peas contain more starch than usual, and it is a difficult problem to sterilize the larger size, particularly of the Alaska variety, without causing them to burst and cloud the liquor.

When this excess starch is present, it is made evident by the swelling of the peas, making a No. 3 sieve size look like a No. 4 sieve pea.

After the pea crop is sown and the plants are in bloom they are "rogued," that is to say, men pass through the fields cutting out all plants that bloom of odd color. In that way the cans and the seed are kept comparatively free from mixed varieties and from black or rogue peas. Great care is taken with the growth and purity of seed peas.

Some packers state that the blacks in canned peas are caused by an insect and that they do not develop until sealed and processed; others hold that the peas have not been properly rogued in the field or hand picked in the cannery.

Ungraded peas (all sizes in the same can) are quite salable at a low price; but beware of mixed peas when the packer has not marked his cans and permits several grades to go out not only in the same case, but in different cans under the same label. Nothing is so exasperating to a retail grocer as to have customers bring back cans saying: "They are twice as large as the first I bought with the same label." That kind of a lot of peas will cause more trouble than profit.

Flat sours are more frequently found in peas than in any other article canned. This condition is very troublesome, as there is no external evidence of the cans being sour and the proportion may run very small or irregularly—for in sampling one may not find the sour cans.

A considerable mushy sediment at the bottom of a can of peas is evidence that the lot has been overcooked and a pea of that description is not worth more than half market value for the grade. A slight sediment, not coupled with cloudy liquor, is, however, of no consequence.

Never, never shake your pea samples before cutting. Don't object too strongly to a lot of peas because the fill is not perfect. Tender peas shrink in processing and peas that are not well covered with liquor in the can do not usually process perfectly.

The standards adopted for canned peas by the Ohio Canners' Association at Toledo, January 13, 1909, are as follows:

Fancy.—Cans to be well filled; peas covered with clear liquor; size uniform; good flavor, and absolutely tender.

Extra Standard.—Cans to be well filled; peas covered with clear liquor and reasonably tender; size uniform; good appearance.

Standard.—Cans to be fairly well filled; peas may be slightly hard; liquor may be more or less cloudy, but not thick; size fairly uniform, and the contents must comply with the requirements of the Natural Pure Food Law.

GRADING AS TO SIZE.

Petit Pois, or size No. 1	Sieve, 18-64ths of an inch
Extra Sifted, or size No. 2	Sieve, 20-64th of an inch
Sifted, or size No. 3	Sieve, 22-64th of an inch
June, or size No. 4	Sieve, 24-64th of an inch
Marrow, or size No. 5	Sieve, 26-64th of an inch

All pea can labels should have printed on them tried and tested recipes for the preparation of peas. The following recipes are of that character.

Pea Soup.

1 can Early June Peas,
2 teaspoons sugar,
½ cup cold water,
1 pint milk,
1 slice onion,
2 tablespoons butter,
1 teaspoon salt,
2 tablespoons flour,
⅛ teaspoon pepper.

Method: Cook peas in their liquor, adding sugar and cold water, and simmer twenty minutes. Rub through a sieve, reheat, and thicken with butter and flour cooked together. Scald the milk with the onion in it, remove the onion and then add the milk to the pea mixture; then season with salt and pepper, celery salt and paprika. Serve hot.

Pea Souffle.

Rub one can of peas through a strainer and add enough milk to make one pint in all. Cook together two tablespoons each of butter and flour, and add gradually the sifted peas and the milk. Season with salt and pepper and sugar and onion juice if desired. Add the well beaten whites of two eggs, pour into buttered molds, and steam or bake in a pan of water until firm in the center. Turn out of the molds before serving. Serve as a vegetable with meat and potatoes.

Glazed Carrots With Peas.

Take three medium sized carrots, wash, scrape and cut in cubes or fancy shapes, parboil 15 minutes. then drain. Add to the carrots one-quarter cup butter, two tablespoons sugar, one tablespoon finely chopped fresh mint leaves. Cook slowly until glazed and tender. Heat one can peas in liquor for five minutes, then drain, and season with butter, salt and pepper.

Mount the peas on a hot dish and surround with glazed carrots. May combine peas and carrots before placing on serving dish.

Creamed Peas and Salmon.

(Good to serve for supper. Serve on buttered toast or on crisp wafers). Make a white sauce, using proportions of:

Two tablespoons butter, two tablespoons flour, one cup milk. Melt butter, add flour, and when well blended and smooth add the milk gradually and cook until thick.

Flake one-half cup canned salmon, add to it one tablespoon lemon juice, and let stand while making sauce. Add to the sauce one-half cup canned peas drained from liquor. Season highly and serve hot.

Old Country Green Salad.

One cup Sifted Peas, one-half cup hickory or walnut meats, one cup diced celery.

Method: Toss ingredients together lightly, using forks, add salad dressing, and pile on lettuce leaf. May substitute sweet cucumber pickles cut in cubes for the celery.

Potato Puff With Peas.

Two cups cold riced potatoes, two eggs—whites and yolks beaten separately—one-half cup milk or cream, one-half cup canned peas, seasoning, one-quarter to one-half cup grated cheese if desired, two tablespoons butter, less if cheese is used.

Method: Mix all together, pouring in stiffly beaten whites last. Bake in greased baking dish until golden brown on top.

The total pack of peas per annum in the United States from 1906 to 1913, has been given statistically as follows:

1906 Number of cases, 24 2 lb.....	4,577,767
1907 Number of cases, 24 2 lb.....	6,505,961
1908 Number of cases, 24 2 lb.....	5,577,000
1909 Number of cases, 24 2 lb.....	5,028,000
1910 Number of cases, 24 2 lb.....	4,347,900
1911 Number of cases, 24 2 lb.....	4,532,300
1912 Number of cases, 24 2 lb.....	7,307,000
1913 Number of cases, 24 2 lb.....	8,770,000

Detailed statistics of the canning by States will be found in this book in the chapter headed "Canning Statistics."

CHAPTER V.

ADVANCE OR FUTURE SALES OF CANNED GOODS.

This question seems to be exciting some attention and developing some negative arguments from writers who hold that retail grocers should "stop buying futures," promising them that if they do they will then be happy ever afterward.

I regard this advice to "stop buying and selling future canned foods" as a protest against the methods of Dame Nature. If she could be induced to reform and to produce a uniform quantity of food

products at regular and briefly recurring periods, there would be no necessity for buying or selling future canned foods.

Why not take another course and stop making preparations for future needs entirely? There is a very large class now advocating that theory, the members of which are all "leading the simple life," all opposed to thrift, and content to rely upon an occasional "hand-out" solicited from some one of contrary views.

Retail grocers have rarely had occasion to complain of the custom of buying canned foods' futures; the consumers, who are the parties most vitally interested, have never rebelled to my knowledge; but many spokesmen have felt called upon to protest in their behalf.

In primitive times our fathers and mothers in their simple way prepared food supplies in harvest time for winter use, and the canned foods packer today stands in the same position toward the millions of people who must be fed.

The retail grocer is a purveyor to the people, and in this mission he walks hand in hand with the packer of canned foods as a fellow-worker in a most essential, honorable and useful occupation.

In buying canned foods "for delivery when packed," the retail merchant obtains the goods at a price which is based upon the actual cost of production with a fair living profit to the canner and the jobber. After such advance sales and deliveries are made, spot prices from maker to dealer or from wholesale dealer to retail dealer, are crowded up to the very last cent that the market or demand will bear.

Advance prices on canned foods are not alone based on the actual cost of production, but are regulated by sharp competition and by rivalry among manufacturers.

In buying canned foods in advance of their manufacture, the retail merchant can, therefore, know that he is securing them at a fair valuation above cost. If he waits and buys his goods as he may need them, he puts himself at the mercy of the operators and manipulators who are always trying to corner the market.

Advances, therefore, are much more frequent than declines, as short crops, crop failures, and speculative pools all tend to send the market higher. Canned foods' futures are always sold for actual delivery and the goods are actually delivered, and there are no bear or short sellers.

A great advantage is secured by the retail grocer in contracting for canned foods in advance in obtaining uniformity and excellence of quality. The custom of contracting for canned foods futures has become so general that the packers of reputation who pack the best qualities are nearly always entirely sold up, or oversold; and if a dealer refuses to buy canned foods for future delivery and takes his chances to get spot goods, his selection and choice are frequently reduced to the surplus goods packed late in the season and of inferior

VIEW DOWN LIGHT STREET
BALTIMORE—"THE HOME OF CANNING"

VIEW IN MACHINERY HALL DURING A
CANNERS' CONVENTION

GEO. W. COBB, Ex-Pres.
(Machinery Association)

L. A. SEARS, Ex-Pres.
(Canners' Association)

C. W. JONES, Ex-Pres.
(Brokers' Association)

quality, or to the products of canneries which pack poor goods and cannot therefore sell in advance; or to the products of new or inexperienced packers who are apt to have irregular and undesirable qualities.

The secret of success in handling canned foods is an unrelenting demand for quality in the can. A dealer, wholesale or retail, must place quality above price, remembering that the canned foods business is one of confidence between buyer and seller. Quality can not be seen through the tin, and even when the can is cut, the fill, color, or flavor of the lot may run differently from those of the can shown.

Futures are packed to order after measure is taken and exceptional care is used in making and filling contracts. This is well illustrated by the suit of clothes made to order and the ready made suit. The latter may be cheaper, but is never so satisfactory. Large houses frequently contract for enough of certain kinds of canned foods for their own brands to last them all the year. If they should sell out, they withdraw the brand from sale rather than try to match the quality.

The buyer of spot goods exclusively in canned foods, always has irregular qualities and is constantly coming into collision with the popular preference for uniform and regular merit. He is a market skinner, is constantly getting skinned, and must find a new line of customers every few months, for it is not something cheap in food that desirable customers want, but something reliable, uniform, and of good value.

The charge that the custom of buying and selling canned foods for future delivery is gambling or immoral is not worthy of consideration, as such goods are bought and sold for actual delivery and are actually delivered when packed.

Such transactions are as legitimate, moral, consistent and commendable as the buying of any other commodity—coal, lumber, boots and shoes, hats and caps, all of which are sold for future delivery, sometimes a year or more before they are manufactured.

It is well known that all the most important lines of manufacture sell their productions far in advance. They could not otherwise do business upon the scale of large production and small profits which modern methods and competition require.

This day and age is one of great fastidiousness and variety of choice, and manufacturers must be guided by the advance selections of grades, sizes and styles which come to them through the judgment of thousands of merchants. These, in turn, are guided by their knowledge of the tastes and requirments of their customers, the consumers.

A large New York canner writes me: "A canned foods packer, particularly of an extensive line like ours, is very greatly assisted in

giving his trade more satisfactory goods if he gets a reasonable proportion of his output sold as futures. In that way he profits by the judgment of the men who are to distribute the products, and is enabled to shape up his contracts with growers for supplies and in all other details. As we look at it after fifteen years' experience, we feel that we would be taking a tremendous risk to pack our products to suit our own ideas and fancies and take the chance of selling them after they are produced."

One of the most thoughtful and able managers of the big canneries of Michigan writes: "The advance purchases of the retailers taken collectively are the only guide the packer has as to the amount of acreage he should plant or contract for. Neither the farmer nor the packer is going to grow or prepare the crops without knowing where they are to market their products; and they would not undertake to provide for the public if the retailers as a whole did not indicate by their future orders about the extent of the requirements of their customers."

These two letters show the attitude of the best packers of canned foods on this question.

The only argument presented by those who oppose the buying and selling of future canned foods that is worthy of attention is that there is in the custom a temptation to speculate and over-buy. This argument is not, however, to be taken seriously.

The retail grocers of this country, as a class, know what the needs of their business are, and how to buy their goods, and in what quantities to buy them, and usually know enough to avoid over-buying and speculation. In fact, all merchandising is speculation to a greater or less extent, and there is no greater danger of over-buying in purchases of future canned foods than in buying spot canned foods. If a retail merchant finds, from his record of advance purchases, that he bought too much or too little of a certain kind of canned foods the previous year, he can reduce his purchases or increase them accordingly. He has no such record usually of purchases of spot goods.

To conclude, canned foods packers are co-workers with retail and wholesale grocers in building up a great industry,—one in which the possibilities are almost unlimited. They have already brought it up to a production yearly of one hundred million cases nearly of canned fish, fruits and vegetables, aggregating in value about $200,000,000.00 and the industry is rapidly growing.

There is no need that the methods by which this great industry has been built up be changed. If retail merchants should be influenced by unthinking and narrow advisers to refrain from buying future canned foods they would thereby do a great injury to the industry, to themselves and to their customers, as because of insufficient capital to handle the industry, production would have to be enormously

curtailed and prices would be tremendously advanced. There is no danger of such action, however, as retail grocers are wise, conservative and patriotic.

They are not children and they need no self-appointed guardians to keep them away from the temptation of over-buying. They are not going to allow bad advisers to prejudice them against a splendid industry, which is justly the pride of this country, through which they make handsome profits, and which brings so much comfort and satisfaction to the public appetite.. Of this they, the retail grocers, are the guardians.

The advance sale of canned foods is one of the most desirable features of a wholesale grocery business, and should be cultivated and pushed. The jobber who sells a retailer his futures usually gets his trade for the entire season. Discourage over-buying on speculation, but push futures. There is no tenable objection.

CHAPTER VI.

BUSINESS LEAKS AND STEALAGES.

A house, being dissatisfied with the profit shown, employed a bright young man as porter, with instructions to find stealages.

Next morning but one he reported that packages going out to employes were heavily overweight. It was found that a conspiracy to steal had existed for years between employes who were permitted to buy their supplies of the house; for example, an employe would be charged for five pounds of coffee and would be weighed out ten pounds.

The privilege to buy was withdrawn from employes and a new force was put in. In a few days he reported that a teamster had picked up a bag of sugar while helping to load, and while the checking clerk had been called away, and had loaded it on his wagon. The wagon was unloaded and the bag of sugar found on the foot board covered up with a lot of old sacks. The teamster confessed and was discharged and arrested. He had been in the employ of the house nine years and had doubtless stolen a thousand bags of sugar during that period. He traded most of it to saloon-keepers for whiskey.

The entire system of the house was investigated by the young fellow (who was quietly transferred from one position to another), and he changed the profit and loss account in the ledger from loss to profit.

No one knew that he was a detective, he worked as hard as any of them, and he was never brought to the front when anything was discovered.

The nature of man is to steal and to be greedy and dishonest. He comes into the world with such instincts just as animals and birds

and fish do. Honesty is the result of training, education, repression and refinement. It is well that the training, education and repression be continuous. When it ceases, man reverts to his natural habits.

If you are not satisfied that you are making and getting a fair return in your business it is well to investigate "leaks and stealages." In fact it is your duty to do so. This is one of the safety valves that should not be neglected.

Are your drivers honest? Do customers report shortages which drivers claim they did not notice? Sometimes those troubles are stopped by changing drivers.

Do your salesmen ask for and get an unusual or unreasonable quantity of samples? It is a prolific source of leakage. Do you keep an account of the value of samples given out? Try it! You will be surprised.

How about the stamp drawer? Stamps stick tight to fingers; and quite a lot are used for personal correspondence.

Don't "give out" stamps. Let one clerk stamp and mail all letters and keep a careful account of all purchases and sales of stamps. The personal use of stamps will dwindle when that is done. Some houses have their initials perforated in the stamps. The postoffice will do it free of charge, and it helps.

How about the lunch baskets and dinner pails of men who work in the stock? They don't always go home empty. I have known a case of imported sardines or fine salmon to evaporate in a week. The poor qualities do not evaporate; only the finer qualities seem to be troubled with that tendency.

The packing room is where great leaks and stealages frequently occur. Goods are spilled and wasted, down weight given, and packages are opened and the contents allowed to get dirty and dusty and unfit for use.

If you want to know how strong the general predisposition to steal is, put out some nice can openers and good plated spoons on your can opening table without chaining them to it. You will lose all you put out at the rate of a dozen a day. Use tin spoons—$1.40 a gross. They never disappear. A gross will last several years.

The waste around a wholesale business is enormous. Boxes and packing cases, tools and pails, lights, matches, letterheads and envelopes, order blanks, pens, pencils, ink, pads of paper, are not only destroyed but wasted and purloined. Put somebody in charge of the issuance of such supplies and let such person keep a comparative account of expenditure.

Watch the habits of your employes. If you have a driver, porter or salesman who shows regularly the effects of the use of liquor, he will bear watching for stealing, as it is merely cause and effect.

Watch the rebating salesman. It is a habit that grows and a weak man uses it freely to bribe customers to give him business. He soon runs behind in his collections as his rebates must be paid from them. Put every man who handles money, inside or outside, under bond. If he cannot give bond, do not let him handle your money.

Reclamations and returned goods constitute a big source of loss and waste. Cartage in and out; goods coming back in bad condition and not in original cases; cut cans and shop-worn goods; swells on which reclamation has expired; old goods sent back in return for new sent out—all these are things to guard against.

In the traffic department there is always more or less freight overcharging and goods damaged in transit. All cases and packages should be "weight averaged" and freight bills carefully gone over for overcharge and errors. Claims for damage in transit should be made promptly and not allowed to lapse.

"Pick up or shortage buying" should be carefully done. It is frequently so carelessly and hurriedly done that the price paid is too high and but little profit is left.

If you own your teams, look out for the repair and feed bills.

About the largest loss you will find by stealage is in the theft of time. Employes will dawdle and loaf and exchange gossip and jokes all throughout the house, from the basement to the top floor, when they are not watched and when they have not enough to do.

When you find such things occurring, give them more to do. Thirty minutes a day lost time means 15 working days per annum. If you have 20 employes who waste that much time, it is equivalent to the services of one employe for a year who you are paying to do nothing.

Eternal vigilance is the price of success and profit in the wholesale grocery business. The business is conducted on such a close margin of profit that the small losses, leakages and stealages will frequently absorb the profit of the business.

Do not be mean or stingy, or so disagreeable in your vigilance as to disaffect employes or to drive away customers; but be firm and just and patient.

Get your employes interested in watching for leaks and stealages. Take them into your confidence one at a time and ask them to help you guard against such things, and they will take pride in doing so. If an employe shows a disposition to protect your interests as he would protect his own, cherish and promote him.

I am not a pessimist or a muck-raker and I don't like to write such a chapter as this; but I must describe conditions as I have found them, and thus indicate how I would like them to be.

CHAPTER VII.

USE OF PACKERS' LABELS.

The attitude of canned foods packers in the matter of labels is like that of Shakespeare's character Iago, who said:

"Good name in man or woman, dear my lord,
Is the immediate jewel of their souls."
"Who steals my purse steals trash;
'Tis something, nothing;
'Twas mine, 'tis his, and has been slave to thousands;
But he that filches from me my good name,
Robs me of that which not enriches him
And makes me poor indeed."

The packer considers that one who does not assume the responsibilities of a manufacturer should not have the credit and rewards incident to good creative work, and just at present there is a very strong feeling on the part of some canners against private or jobbers' labels.

I am like the man at the revival meeting who was asked whether he preferred to go to heaven or to hell. He replied that he "wanted to think it over, as he had friends in both places."

I have handled both packers' and private labels during nearly all my experience. The National Pure Food Law has relieved the custom of private labeling from the charge of deception and fraud frequently made against it (previous to the enactment of the law), by requiring that the private label shall read "packed for" or "distributed by," or "distributors of," etc.

Even this is not satisfactory to canners, however, as they want their own names on the cans; and I would not be surprised in the near future to hear of national and state legislation being secured inimical to the use of private labels.

The passage of such legislation would be powerfully contested; and I doubt whether such a law, if enacted, would stand the test of constitutionality.

There are advantages and disadvantages to a wholesale grocer from handling his canned foods under packers' labels. He can carry smaller stocks, and can always job his goods to other wholesalers if they do not prove salable to his own customers. In addition, a packer will usually put his best qualities under his own label, will make better deliveries, will give a liberal or perpetual guarantee against swells, will supply samples liberally, and will frequently assist in the introduction of the labels by furnishing special salesmen, demonstration work and advertising work.

The wholesaler can fix his own selling price and profit percentage, provided he controls the line for his market, and profits by the cumulative or repeat business from year to year. He is free from the annoyance of labels and labeling, has no money invested in labels, does not have to support the expense of a labeling force, and hasn't the constant care of scraping cases, stripping and relabeling cans, and of matching grades and qualities. He can usually undersell a competitor who uses private labels exclusively, and he has a strong argument that seems to appeal to many retailers.

A wholesaler will sometimes take on the agency for a line of canned foods regardless of his ability to handle it in connection with similar lines he may control. It is a bad policy, one which will bring him more loss than gain, and it is unfair to the packer and to himself.

On the other hand, a canner will sometimes give a jobber the agency for his line for a certain territory. He thus secures his earnest and faithful co-operation. Then, when the brand is well introduced, the canner will complain that not enough goods are being sold, and put the line on the open market.

That policy is not only a bad breach of faith, but it is suicidal, as the prices will at once be cut to a point where there is no profit and the line cast aside by both jobbers and retailers as unprofitable; for no brand of canned foods can be kept before the public, if it is on the open market, except by heavy, constant and expensive advertising and by work through special salesmen, demonstrators, etc. Such work never can stop. As illustrations I cite Van Camp, Snider, Campbell, Burnham & Morrill Co., and others, and their methods.

Both packers and wholesalers should act in perfectly good faith and treat each other as friends and allies. Contracts for control of a line should be made for a term of years, or to continue as long as a certain amount of sales are made.

Prices should be kept in line. Do not let the packer fix his own prices. You are buying the goods and must meet legitimate competition. A packer is prone to overestimate his own values. He, however, cannot meet every snap or chance bargain on the market. It would ruin him to do so; but you can compare his values with those of other lines regarded as equally desirable, and then, when the prices and grades are fixed, watch them closely from season to season and see that they are kept square with the market.

The most successful canners I know are those who appoint a wholesale house as agent for their line in each important business center and depend upon such agents to take conjointly their entire output.

Business can be much more rapidly built up under packers' labels than under private labels, and a larger class of trade sold.

CHAPTER VIII.

JOBBERS' OR PRIVATE LABELS?

In discussing this subject I will treat it solely from a canned foods standpoint, though jobbers use their own private labels largely on other goods, viz.: extracts, baking powder, gelatine, soaps, starches—in fact, all through the line.

The use of private labels on canned foods in the United States has grown to enormous proportions. Nearly all wholesale grocery houses use them to a greater or less extent.

The mission of the private or jobber's label is to secure and insure an adequate profit, to hold and increase business, and to advertise one's business, and there is no doubt that the private label does all those things and does them well.

When one has his own label on an article, he controls the price and profit and reaps the benefit of the cumulative demand from year to year which the introduction of the label creates.

The largest houses in the wholesale grocery line have built up their reputations and fortunes by means of their private labels, and it has come to be considered that no permanent and profitable business can be established without their use.

In all lines of merchandise this is the case, and dry goods, boots and shoes, hats and caps, hardware, and many other lines are so distinguished; and many wholesalers, who are really not manufacturers, nevertheless assume that attitude by selling goods manufactured for them under their own labels.

In the wholesale grocery line the first great impetus was given to private labels by Thurber, Whyland & Co., of New York, who thereby built up an enormous business, selling for several years an average of fifteen millions per annum. But the house carried its business expansion too far and gradually went to pieces.

There are houses now selling about as much, which are doing a safe, conservative business, and which use private labels even more extensively.

In putting one's private label forth too much care as to merit and absolute uniformity of quality, style and flavor of the goods cannot be exercised.

I have known big buyers, whom I could mention, to spend weeks looking for just the grade of peas or the style of peaches needed to exactly match the goods they had been furnishing under a certain label, for it is just as dangerous to give too high a quality as it is to give too low a quality, as one must keep to the standard he himself sets and, if it is too high, he may not be able to do so.

The big specialists in private labeled canned foods make their contracts with extreme care, and make them with the most responsible, dependable and reliable packers, and none others. They carefully stipulate in the contracts, the grade, quality, sieve of peas, measurements of peaches, stalks of asparagus, and many details to which the average buyer gives no heed. Then they frequently visit the canneries while the goods are being packed to see that the packing is being done according to contract, or to select from the various runs or day's packing the lots that please them best.

They also carefully stipulate in their contracts as to how the labeling of cans shall be done, how the cases shall be labeled or stenciled, and the quality of the cases—mentioning the measurements and thicknesses of the wood.

Swell guarantees are carefully negotiated in the contracts and many of them are more extended than the regular guarantee.

The selection of trade mark brands for labels is important, as a catchy name is of great force in promoting the sale of goods, it is also of great advertising advantage.

Awkward, inexpressive or commonplace names should be avoided and names suggesting quality or pleasant thoughts at least should be chosen.

The following, for instance, are good selections for canned foods labels; Ferndell, Dainty, Monarch, Blossom, Snowdrift, Mr. Red (last is for salmon), Wedding Ring, Veribest. These are bad: Columbia, Union, Twin Baby, Semaphore, etc.

Too great a regard for neatness of appearance can hardly be exercised, as bright, clean cases, cans and labels do much to please and satisfy buyers and attract patronage. I always put two can labels, one above the other, on one end of each case of canned foods in preference to smearing the case with a blurred stencil.

Box labels are expensive, and hard to handle and care for, and two labels on one end of each case, one above the other, look as well or better.

In using private labels it is best to have them printed at one of several large establishments that specialize in that line of manufacture. They have the artists, the equipment, and the facilities, and can turn out the work in the agreed time.

If you handle goods extensively under your private labels, it will be essential to have a labeling machine and a label perforating machine. Neither are very expensive and they are great labor savers. Give to each packer, of whom you buy goods for your labels, a number; and perforate that number in the labels you send him to put on the goods; also perforate the year or date in the perforation cypher, thereby protecting yourself against loss by swells under the packers' limited guarantee.

Keep your labels carefully in shelves specially prepared for them and protected from dust and mice. Metal shelving is best.

Packers generally allow only $1.00 per thousand for labels; but they will allow more if you insist, as only the commonest, cheapest label can be bought for that price, and they nearly all pay more than that for their own labels.

They will always put on your labels free of charge.

After the packing season is over and your supply of certain grades under your private label is exhausted, it will be essential to buy and match the grade. Always buy unlabeled goods if possible, as the stripping and relabeling of canned foods is expensive and laborious, and the goods never look right; for the cans must be scraped and unless can labels are soaked off in hot water, it is difficult to get all of the old label entirely off, and nothing is so confidence-destroying as to have other labels or parts of them detected under your private label.

In selecting your grade and styles of goods for your own label be guided by your own observation as to what grades of goods sell best.

If it is found that your customers buy largely of goods to retail at ten cents, make your line strong and complete in that respect; if they buy strongly in fifteen, twenty or twenty-five cent goods, arrange your lines accordingly.

Better profits are possible and should be obtained under one's own label, as the element of competition is partially eliminated, and prices can be controlled and maintained; but good value must be given in order to build up and hold patronage. The buying is therefore harder and more exacting than if one handles packers' labels.

As to the desirability of undertaking to handle canned foods under private labels, I should summarize by saying that the custom is greatly to the advantage of the jobber, as it secures for him price, cumulative demand, advertising advantage, the gradual building up of a lasting reputation, and stability of business. It also gives to the wholesale grocer many of the advantages of the manufacturer free from the manufacturer's risk and responsibilities.

The custom, however, is hard upon the manufacturer, as it deprives him of the very advantages which I have enumerated as secured by the jobber, and gives him in exchange only the quick turnover of his pack unlabeled. It relieves him, however, of carrying charges, expense of specialty salesmen, etc.

The disadvantage of carrying a considerable stock of canned foods under private labels is that the goods cannot be jobbed or sold to other wholesale houses. The method requires the carrying of larger

stocks than otherwise. When kept unlabeled, however, canned foods can nearly always be readily sold to other wholesale houses for private label use.

The largest houses give an absolute, permanent and perpetual guarantee against swells under their private labels and lose a larger percentage of swells and leaks therefore than they would under packers' labels.

A considerable investment of money in labels is required in handling a big line, some houses keeping as much as ten to fifteen thousand dollars so tied up, but such an amount is unusual.

National laws at present require that the words "distributed by" or "packed for" be used by any but the actual manufacturer on canned foods, with the name and location of the owner of the label; and most State laws do the same. The law also requires that the label state the truth as to grade and quality. That is not the wording of the law, but it is the meaning and spirit of it. Be careful, therefore, about exaggerated misrepresentation of quality on the labels, as the law is now being enforced along that line.

The private labeling of canned foods is being rather overdone at present, as even the larger retailers are using their own labels, so a reactionary feeling of prejudice has started against the custom.

From a moral standpoint there is no reason why a grocer should not use his private labels on goods, if he so desires, provided he complies with the requirements of the law. It is rather a serious undertaking, however, as it takes years of labor and great expense to establish a reputation.

CHAPTER IX.

USE AND EXPENSE OF SAMPLES.

Being hermetically sealed, canned foods cannot be sampled without cutting the can and thereby destroying the value of the goods, and yet canned foods cannot be intelligently sold except by showing the contents of the cans.

The retailer should be informed and educated as to the quality of the goods he is commending to his customers, as he cannot well afford to cut samples of his small purchases, at least he usually thinks he cannot, and usually does not do so.

Packers and wholesale dealers should be liberal in respect to canned foods samples, as a much larger quantity of goods can be sold and better profits obtained by using samples than otherwise.

When new goods arrive they should be thoroughly sampled and the cans left on the cutting table so that the attention of salesmen to the quality can be secured and goods shown to customers coming in.

A special arrangement frequently can be made with a canner by which he will allow a number of cases of a lot of goods to come free for sampling.

Salesmen should also be permitted to take out samples of canned foods, under certain restrictions, to show to customers, as it is a most effectual method of getting orders and introducing brands.

By the use of a suitable sample case open cans can be carried from one retail store to another, the liquor being poured low in the cans, and the custom catches the business.

Always cut samples on the side. Insert the point of the can opener just beyond the seam of the can (you cannot cut through the seam), and cut around to the seam on the other side, but be exceedingly careful to hold the can firmly and steadily or the ragged edge of the tin will cut your hand badly if the can slips, and such cuts are painful and sometimes poisonous. Keep a little powdered boracic acid in the drawer of the cutting table to use on such cuts as an antiseptic.

A can cut on the side always looks fuller and nicer than one cut on the end, and meat or salmon cans must be cut on the side in order to get the contents out whole.

Shake canned corn and succotash briskly before cutting as it mixes up the contents and gives them a creamy consistency; but be sure not to shake any other article in canned foods. Especially do not shake peas.

The best canned foods sample case I have seen is made in Chicago, being a wood body covered with black leatherette, two story, holding eight No. 3 cans or more smaller ones, and having nickel plated clasps and leather handle. The inside is lined with oil cloth and can be washed out. It costs $5.25.

The secret of cutting a can nicely and smoothly is to have a sharp can opener that will open the can on the side. They seldom come sharp, but may be sharpened with a file.

A good substitute sample case—probably the best for carrying open cans—is a tin box deep enough to hold a No. 3 can and large enough to hold about six. These boxes can be had lacquered, with a handle, and having a clasp to hold the top down. They cost about $1.00. They are better than the sample case described, but salesmen do not like to carry them. I used to carry my open samples from store to store in a No. 2 open elm splint basket with a piece of newspaper over the cans, and I got the business.

The expense of cutting canned foods samples mounts up rapidly and must be carefully curbed. I have known it, when not watched, to amount to $200.00 per month—though considerable of that expense was due to samples submitted on government and other sealed proposals or bids.

The privilege of using canned foods samples is likely to be abused by salesmen and no sample should be issued except on written authority over the signature of one of the proprietors or of a department manager—special blank forms being used for that purpose. These forms should specify brands, quantities and to whom the samples were issued. At the end of the month or week the bill clerk should extend the value and give the department man the total and the amount used by each salesman. If results have not warranted the quantity used, it should be reduced, and the same test applied to the quantity used by each salesman.

The exhibition of an open can of fruit or vegetables or fish is a sure way to attract the dealer's attention, and a sale can frequently be made by asking the attention of women customers who come into the store to the quality of the goods and getting their opinion of it.

The true test of quality is comparison; in fact, all qualities are comparative; nothing is good except by comparison with something else.

In buying it is well to compare qualities carefully with goods of similar price or grade; and in selling, if one has confidence in the quality of his sample, it is frequently well to buy a can of what the dealer is using and show him the superiority of your goods. Such an item of expense should be allowed. The dealer, however, will not always charge for his sample as he can use the goods on his own table.

Never show a sample of canned foods, however, or cut a can for comparison, if the sale can be made without doing so. Remember that there is always a chance that the can may not cut right and that in opening it you take that risk. On the other hand, never buy a lot of canned foods without cutting one or more cans and knowing thereby what you are buying. Even the best known brands vary in quality.

It is well to have during the year lectures on any lines of canned foods you are pushing illustrated by open sample cans of the goods. You should require the attendance of all your salesmen upon such lectures.

If you haven't time to prepare such lectures you can find the material for them in these pages. Such talks will have most wonderful results in arousing the interest of your salesmen and in making them feel strong and confident in presenting the line to their customers.

Make an arrangement with a cheap restaurant to take all the cut cans from your sample table for five cents a can or more. It can easily be done and will save more than half the expense of your samples, as brokers leave many cans cut on your table which cost you nothing.

CHAPTER X.

USEFULNESS OF BROKERS—THE AFFIRMATIVE.

There is a difference of opinion as to the usefulness of brokers. I am presenting both sides of the controversy—embodying the views of many with whom I have discussed the subject and not giving my own views. My readers are all intelligent, practical, thinking people and thoroughly competent to draw their own conclusions. The affirmative opinions are as follows:

The brokerage business is one of honor and usefulness if properly and competently conducted.

Canned foods packers could not get along without the services of a broker, who sells their output for them in advance, helps them to finance their business, and saves them the expense, embarrassment and distress incident to having to pack their goods and then hunt around for a buyer.

The broker is the philosopher, guide and friend of the packer—telling him what to pack and how to pack it, and selling it for him to responsible people even before it is ready for market. His small percentage or brokerage can well be afforded by the packer and should be cheerfully paid. It is paid only when earned and upon actual sales, and the system is far cheaper than any other sales method so far found.

The broker is usually an expert in his line of goods and can be of great usefulness to both packer and jobber, for his judgment as to qualities is recognized as impartial.

The broker well earns his small percentage or brokerage, for he makes up mixed carloads so as to save freight to the jobber and secures for the small wholesale buyer as low prices and freights as the large buyer can obtain.

The canner pays the brokerage. He does not put it into his price, as is complained; but he pays it out of the amount he saves by the broker's economy of selling expense. If the canner had to sell his own product it would cost him triple or quadruple as much to do so as the brokerage he now pays.

The broker cannot consistently be regarded as a burden or expense upon business, nor his brokerage as a tribute or tax, for his services produce such economies in the process of distribution that his part of the expense is far more than counteracted.

The broker is properly regarded as the agent of both buyer and seller, and should be regarded as the friend and ally of both. Legally he represents the party who pays him his brokerage.

In political economy the most effective results are produced by the "division of labor"—which really means the employment of expert labor in each process of an undertaking. The canned foods or merchandise broker is thus employed in the process of commercial

distribution as an expert, and he saves enormously more to all parties concerned than his cost.

Commerce seeks the cheapest and best methods just as water seeks a channel. Brokers are employed in all countries. This proves that they are considered one of the valuable essentials of business and a part of that intelligence of selection by universal choice which establishes the usefulness of their occupation to the world and its people.

Brokers are used to great advantage in all important lines of commerce and manufacture as well as in the wholesale grocery line. They bring to the attention of the buyer dry goods, boots and shoes, leather, iron and steel, shipping, cotton and grain, provisions, stocks and bonds, and, in fact, the product of all the important and many of the unimportant lines of human industry and achievement.

A buyer should patronize but few brokers, and, if possible, the best and most competent; otherwise his transactions are public and known to his competitors. Inexperienced or irresponsible brokers freuently exhibit or recite their sales in order to influence others to buy.

By sympathetically encouraging everyone who has an ambition to be a broker a buyer assists in building up around him an element that will take up much of his valuable time and be of great disadvantage.

The true broker does not constantly, persistently and insidiously try to force goods upon you that you do not need and which he knows you should not have; nor does he try to stuff orders. Having no regard for a buyer's peace of mind, and caring nothing about his success or his usefulness to his house. Such a broker, figuratively speaking, "feeds with his feet in the trough," and his steps take hold on hell.

Many a buyer has been ruined and discredited by being overloaded with unsalable goods by such a broker.

He is not a trustworthy broker who, in order to save his percentage or brokerage, takes the part of the seller, right or wrong; for he will betray you in your time of greatest need, and he is dangerous to do business with. A broker should stand as a great rock between buyer and seller—impartially, justly and immovably for the right. He should be the friend of both parties and his business relations with them should at all times be absolutely equitable and confidential.

A good broker can be of great advantage to a buyer in helping him unload surplus stock, and he should be so used. It is best, of course, to unload surplus stock through your own salesmen, giving your own customers the benefit of the low prices. The broker is the next best medium.

Good brokers do not engage in social conversation during business hours. Their time is or should be valuable, and so is yours. A brief interchange of news and views with a competent broker is sometimes both an advantage and a pleasure; but let it be brief.

CHAPTER XI.

USEFULNESS OF BROKERS—THE NEGATIVE.

The affirmative of this question is in the preceding chapter. This is the negative. My personal views are a composite of the two and are not given.

Opinions in relation to the necessity for brokers in the canned foods line and as to their usefulness are divergent. Brokers do not generally know that fact, as people don't tell them about it.

There are a great many canned foods packers who feel that the 2 per cent or 3 per cent they pay brokers is a useless tribute; and there are many wholesalers who feel that the broker's services are not of sufficient value to warrant them in having 2 per cent. or 3 per cent. added to the cost of their goods.

Profits in the wholesale grocery line are so reduced that 2 per cent. on purchases would pay a handsome dividend on capital stock and bridge the chasm between a paying and an unprofitable business.

The question naturally arises in the minds of wholesale grocers who have in their employ expert department managers, to whom they pay high salaries, and who frequently know more than the brokers they buy of about the goods bought: "Why should I pay tribute to this individual, the broker, who stands between me and the manufacturer; and why are my own people not competent to buy direct?"

It requires little or no capital to engage in the brokerage business, and but a fair familiarity with the goods represented.

The idea which the packer has as to brokers is that, by putting his goods into brokers' hands he secures their faithful and constant presentation. He does not realize that the broker represents to the trade probably a dozen canners in his line and will frequently sell the cheapest offerings because it is easiest to do so.

The jobber's idea is, and has been, that the broker would bring to him his best trades and bargains and protect his interests as a friend, and that it is easier to buy through a broker than to buy direct. But it is not always so.

The number of brokers has increased enormously in ten years and now there are many more brokers than buyers.

There is a great multitude of small brokers who almost constantly beset a buyer, importuning him to buy goods which he does not need.

The valuable time of expensive employes is thus wasted because courtesy requires that brokers be treated with consideration. The most important part of a department manager's duties is to keep the salesmen well posted and to teach them how to sell the goods he buys; but he should also attend to the details of his department.

If, however, his time is chiefly absorbed in listening to a daily procession of brokers, of whom he seldom buys anything, how is he to keep up the efficiency of his department and to do his duty to his house.

This condition may not prevail in the smaller towns or cities where brokers are not so numerous, but it does prevail in the larger places to a most distressing extent.

To be compelled to receive fifty brokers a day, or more, forty-five of whom have nothing of interest to him, is a soul-harrassing and nerve-destroying experience to a buyer.

The brokerage business in canned foods and in dried fruits is heavily overdone. There are too many engaged in it and the result is that, in order to live, some are compelled to solicit and to sell to the department stores, chain stores, and semi-jobbers. They also do a jobbing business, by co-operating with sub-brokers or retail brokers, who have a little capital and desk room and sell any retailer who will buy a 25-case lot of goods—which these sub-brokers buy of the larger brokers from spot stock.

In this way the legitimate jobber is being forced backward for patronage upon the smaller retail dealers who cannot buy in 25-case lots and who need credit. What is the remedy for this state of affairs? There are several! Wholesale grocery buyers must adopt some of them in self-protection.

They must fix buying hours when they will receive brokers, or days when they will buy, and make no exception or deviation; or they must confine their purchases to a few of the best brokers who sell only to the wholesale trade without evasion; or they must secure the agency for certain packs of goods and control of the line for their market; or they must make all their purchases by wire, telephone or mail, and make none through personal solicitation at their desks; or they must buy all their goods by bids or sealed proposals (as does the government and certain large corporations, on samples submitted); or the buyers must organize a buying exchange, to meet on certain days and hours, where they can interview the sellers and each other and do all their buying there and then from the sellers and from each other.

Author's Note—The foregoing negative side of the proposition, "Are Brokers Useful?" is taken principally from the opinions of several large buyers and of one or two general managers to whom I have talked on the subject. I do not hold myself personally responsible for either view, as I do not agree fully with either the negative or the affirmative.

CHAPTER XII.

HARD WORK AND HARD PLAY.

I have received the following letter:

"Friend Lee:—

"What can I do to save myself from the constantly increasing cares of business, and the work, the worry, the fretfulness and the petulance caused thereby? They seem to be growing upon me?"

"A WHOLESALE GROCER."

It is said that artistic genius is the capacity for taking infinite pains with one's chosen work, and that a great actor is essentially one whose impersonation of a character is to himself so real that he actually lives and feels all the sentiment, the fear, the hope, the passion which he depicts.

The merchant of genius, whose ambition and pride, whose love of and loyalty to his work, so absorb him that he unconsciously assumes greater responsibilities and more and more of the details, is a great artist in his capacity for taking infinite pains. He is also a great actor, because he is himself a part, the very soul of his work. Of such a man it was said in the book of Proverbs: "Seest thou a man diligent in his business? He shall stand before kings; he shall not stand before mean men."

When, however, one's ambition is coming to its fulfillment; when his work is approaching his ideal; when the picture he has placed upon the canvas or the impersonation he has wrought has become an established and safe business enterprise; when his duties are beginning to become monotonous; when the business sentiment which so enthused him has begun to wane and his soul to shrink in distate from the continually heaping up of infinite details; when his eyesight has begun to grow dim, his hair to show the frost of years, his power to resist and repel worry gradually less, his cheerfulness to vanish and his petulance toward his employes, his family and his associates to increase, what then?

"For what shall it profit a man, if he gain the whole world and lose his own soul?" So says St. Mark, and the inquiry is pertinent to my purpose and directly to the point, because a man's optimism, his power to resist annoyance, his buoyancy of temperament, his joy in the power and pleasure of achievement, are of his soul. They are of his life the essence, the joy, the sunshine, the fragrance.

He may lose them and may continue to profit in a financial way but he is a drudge, a slave to his business, governed by a sense of duty to others, blind to the beautiful in life, deaf to the music in the laughter of little children and in the songs of women and birds, unmoved by sentiments of pride or compassion, and has a heart as cold and

cheerless and as pitiless to himself and others as the eternal ice of the Arctic Circle. What shall he do then that his mind may be kept alert, his body healthful, his soul as that of a man?

There are several things which he can do. He can so systematize his business that he can be away from it and yet have a directing hand upon the lever which controls it. By a system of daily reports from each department of his business, to be forwarded to him, he can regulate it and guide it almost as well as if he were present. Those reports need not be expensive, for his personal stenographer, during his absence, can compile and forward them. This is the artist's method of taking infinite pains with the lines and the proportions of a model, leaving others to chisel the marble and hew to the line.

Again, he can adopt the actor's method and have an understudy—one so well versed in his superior's duties that he can assume them acceptably during the absence of his principal.

In fact, this plan should be put into effect (and is) in nearly all large business establishments. The manager of a department should understand and recognize the necessity for this arrangement. If he is too narrow or jealous to train up an assistant, he is, himself, not broad enough for a high commercial position or loyal enough to the owners and the future interests of the business. "Men think all men mortal but themselves." Life is exceedingly uncertain and there are times of sickness and disability, of vacations and necessary absences; and there are resignations, reorganizations and promotions of important men to higher positions. All these conditions must be considered in business enterprises, especially those which are incorporated (all should be) and which are to go on forever.

Every important position, from the presidency to the head of the shipping department should, therefore, in the interest of the business as well as for the welfare and mental peace of the principals, have an understudy.

It is not essential that there should be two sets of employes in order to so arrange a business; but the man on the next rung of the ladder below can look upward, not downward, and prepare himself to step up higher.

There is nothing in the strenuous and arduous mercantile life of this country and these times except hard work and hard play. In other countries, where merchants live their lives more sensibly and philosophically, the aim usually is to acquire a modest competence; here the struggle is for great fortunes and superabundant riches.

If one is in this game, he must play it according to the established rules and custom; he must go the pace; he must work hard and in order to keep himself physically and mentally competent he must play hard.

A hobby, a fad, a recreation, to be indulged in sensibly and according to the age, strength and physical powers of the seeker for relief, should be found and encouraged for hard workers.

Horseback riding, billiards, golf, bowling, automobiling, debating, photography, drawing, the study of languages, literature, music, all these and a hundred other diversions are open to the worn, tired, discouraged worker.

This existence is but a probationary period wherein we may or may not educate and equip ourselves for that higher existence for which we all hope; let us, therefore, avoid becoming so absorbed in our work that it becomes drudgery and while digging, delving, dredging for dollars, neglect those things which make even more for happiness, health and contentment than accumulation of great wealth. Nor should we forget that

"The soul, of origin divine,
God's glorious image, freed from clay,
In heaven's eternal sphere shall shine—
A star of day.

"The sun is but a spark of fire,
A transient meteor in the sky;
The soul, immortal as its sire,
Shall never die."

CHAPTER XIII.

CANNED CORN.

Next to tomatoes, canned corn is the most important product of the canning industry. Its consumption is almost wholly confined to the United States, however, as the use of corn as food is but little known elsewhere.

As a wholesome, cheap and nutritious food product canned corn is far superior to tomatoes, peas, or any other canned vegetable.

Indian corn or maize is indigenous to this country and was cultivated by the American Indians long before the whites discovered the land.

Maine claims to pack the best corn and bases the claim upon the short, quick season prevailing in that state, the natural qualities of her soil and the skill of her packers in handling this product. New York packs fine corn, as does Vermont, Illinois, Iowa, Indiana, Ohio, Maryland, Nebraska, Wisconsin, Minnesota and Pennsylvania. The pack in the other States is unimportant so far, but is annually increasing.

Statistics of Corn Canning.

	Cases of 2 Doz. No. 2 Cans.
Total pack in United States in the year 1901	4,757,735
Total pack in United States in the year 1902	4,113,087
Total pack in United States in the year 1903	4,591,146
Total pack in United States in the year 1904	11,162,962
Total pack in United States in the year 1905	13,018,665
Total pack in United States in the year 1906	9,136,160
Total pack in United States in the year 1907	6,675,908
Total pack in United States in the year 1908	6,779,000
Total pack in United States in the year 1909	5,787,000
Total pack in United States in the year 1910	10,063,000
Total pack in United States in the year 1911	14,301,000
Total pack in United States in the year 1912	13,109,000
Total pack in United States in the year 1913	7,283,000

(Statistics in more detail will be found in the chapter devoted to that subject.)

Canners of corn have in past years experienced great difficulty in securing acreage, as farmers do not find the raising of sweet corn for canning purposes profitable. They prefer to raise field corn, which, because of the high price of cattle and swine to which it is fed, brings farmers a much better profit than sugar corn grown for canning.

Canners of this food have therefore been compelled in many instances to plant and grow their own sweet corn.

Standards for Canned Corn.—The standards established for canned corn are rather crude and indefinite. The Baltimore Canned Goods Exchange definition of standard canned corn reads: "Sweet corn only to be used, cut from the cob while young and tender, cans to cut out full of corn."

The Ohio Canners' Association adopted the following standard: "Fancy—Cans to be well filled; minimum gross weight to be 23 oz.; absolutely young and tender stock; natural color; medium moist and practically free from silk, cob and husk. Standard—Cans well filled; minimum weight 23 oz. gross; stock reasonably tender; free from hard particles; natural color."

Indiana packers have adopted a definition only for a standard quality. It is practically the same as that of the Ohio Association except that the words "medium moist" are added and the words "free from hard particles" omitted. Much care is exercised by packers in the growth and selection of seed corn for canning purposes, and many varieties are originated.

The professional seedsmen usually grow Stowell's Evergreen, which is a corn of heavy yield, but with a large grain likely to prove tough in the can unless carefully handled; and Crosby, which is an

excellent corn but not a heavy yielder; and Country Gentleman, which is of a deep grain and a good yielder, but which, though of a good color and flavor, is hard to pack at a proper stage of tenderness.

Process of Corn Canning.—Acreage is contracted in the fall and early spring. Inspectors from the factory visit the fields during the planting and growing season to advise farmers as to the care of the crop, and to watch its condition carefully, ordering the farmer to bring it to the cannery on a certain date. Canners usually furnish the seed, deducting the value of it from the first deliveries.

Husking may be done by hand, but machines have been invented that will properly do this part of the work. The corn when husked is run through a brushing machine to remove the silk, then the ears are run through the cutters, which cut the grains about half their depth and scrape the rest of the grain. After this the cut corn is run through the silkers which remove what silk remains and pieces of husk and cob. Now it goes to the mixer, where it is mixed with a brine composed usually of water pure from artesian wells, 25 pounds of sugar and 20 pounds of salt to each 100 gallons.

From here the corn goes into the cooker, where it is subjected to a preliminary heat of about 175 degrees, then it goes to the fillers. Fancy corn is somethimes run through a recutter, after coming from the silkers. After the progress described, the corn is subjected to the same processes of filling, capping, sealing, cooling, labeling and casing that are common to all other canned products.

Owing to the solidity of the contents, corn must be heavily processed, the formula being 250 degrees for 60 minutes in the retorts. Corn packed in No. 10 cans is very unreliable as it is difficult to permeate it with the heat so as to sterilize it sufficiently. Maryland style, or wet packed corn, is cut off the cob either by hand or by machine, the whole grain being cut to its full depth, and the cob not scraped; it is then packed in the same brine as previously described. Some packers use as much as 50 pounds of sugar to 100 gallons of water in making a brine, but the regular formula is 25 pounds of sugar and 20 pounds of salt to 100 gallons of water. The entire process of packing corn is mechanical, and is conducted in modern factories with the utmost cleanliness, and with strict regard to sanitary conditions.

Buying Points.—Examine carefully for tenderness of grain and for fullness of cans. Do not shake the corn before opening, and open some cans at the cap end and others at the end opposite the cap. Corn is cheapened by the free admixture of brine, and though it should not be so dry as to solidify or cake in the can, it should not be sloppy.

In an inspection stir the corn from the bottom of the can, then pour it out in a dish to find the defects, then inspect the empty can for evidences of dust or cinders from unwashed cans and for acid stains down the side seam and cap seam. A moist consistency is desirable.

Do not be too exacting about a white color. A dead white color is occasionally produced by a corn starch filler or mixture, while a heavily sweetened corn safely processed will turn yellow in the can. Such a corn, however, is better and safer than the starch-mixed corn.

Consumers do not care about the color, as, when corn is cooked, it always turns dark or yellow. A white color is therefore not so important and frequently means poor quality, while a richer color means purity, wholesomeness, and a fine natural flavor.

Selling Points.—Never, when selling, cut a can of corn on top. Cut on the side, as the can always looks fuller and nicer. Never cut the cap end of the can, as there is frequently some discoloration under the cap, caused by the scorching of the corn by the soldering iron, or by the staining of it by the acid used to set the solder around the cap. Nearly all canners now label canned corn cap end down.

Always shake a can of corn carefully before cutting it for a buyer. If it is packed too dry it will thereby be mixed to a presentable consistency; if packed too wet, it will be given a thicker consistency. Some times, when corn freezes and thaws again, the water in the brine separates and rises to the top, but a vigorous shaking will cause it to combine again. Do not thrust a spoon to the bottom of the can and stir the contents upward; rather smooth the surface with the spoon, for when you stir the corn upward you are apt to bring the heavy, tough grains to the surface. Always try hard to get your customer to take as high grade corn as you can, for quality will make him more friends than low prices, and will bind him to you with hooks of steel.

Isaac Winslow, of Maine, is said to have canned the first corn packed in the United States. He had been a sailor and had learned the principle of sterilizing by heat in France. His first experiments were conducted in 1839, but they were not very successful. He applied for a patent on his method in 1853; but the patent was not granted until 1862.

The care with which corn is handled has much to do with its quality and flavor, more, indeed, than the advantages of location and climate.

Quantity packers have several times almost ruined the industry of corn canning by putting large blocks of tough, flavorless canned corn on the market. By that means they have distressfully retarded the growth of demand and consumption.

If insufficiently cooked, corn will separate from the water used in the brine. When it is permitted to freeze hard, the same result will be produced.

"Maine style" corn is corn that has been cut and mixed with the milky cob scrapings. "Maryland style" corn is cut deeper and the cob is not scraped.

Field corn is never used for canning purposes; but fully matured sugar or sweet corn too old to can is sometimes used and gives the buyer the impression that it is field corn.

Every canned corn label should have printed thereon a number of good tried recipes for favorite preparations of canned corn. The following recipes have all been tested and will bring delicious results every time if directions are followed:

Corn Soup.

1 can corn,
1 pint boiling water,
I pint milk,
1 slice onion,
2 tablespoons butter,
2 tablespoons flour,
1 teaspoon salt,
Few grains pepper.

Chop the corn, add water, simmer twenty minutes, and rub through a sieve. Scald milk with onion, remove onion, and add milk to corn. Bind with butter and flour cooked together. Add salt and pepper.

Green Corn Fritters.

One can corn pulp chopped fine, one egg beaten until light, one-quarter cup flour, one-quarter teaspoon salt, one-eighth teaspoon pepper, one-quarter teaspoon baking powder.

Method: Mix dry ingredients and sift together. Combine the egg and the corn and add the liquid mixture to the dry. It may be necessary to add a little more flour as the fritters should be a little thicker than cakes. Drop by spoonfuls in deep hot fat and cook as doughnuts or cook until fritters are done throughout and are a deep golden brown in color. Drain and serve hot with brown sugar or with maple sugar syrup. May serve with cheese sauce.

Cheese sauce: Thick white sauce to which paprika and grated cheese are added.

Corn a la Southern.

One can or two and one-half cups corn, three eggs beaten slightly, one teaspoon salt, a dash of pepper, one tablespoon butter melted, one pint scalded milk.

Method: Mix all together, turn into buttered baking dish, set in pan of boiling water and bake in slow oven until tender.

Scalloped Corn.

One can corn, two tablespoons butter, one cup rich milk, one teaspoon salt, dash of pepper, one cup bread crumbs buttered.

Method: Melt two tablespoons butter in frying pan. Add dry crumbs, stir until all are coated. Grease baking dish, put in layer buttered crumbs and add corn and milk and seasoning. Sprinkle buttered crumbs over top and bake in moderately hot oven until crumbs are brown.

CHAPTER XIV.

CANNED TOMATOES.

The tomato, like many other good things, originated in America, being a native of tropical and South America. It was formerly called a Love Apple, and when first introduced into the United States was regarded as unwholesome and used only for purposes of ornamentation or decoration.

It is now more largely cultivated for canning purposes and more largely canned than any other vegetable. The United States and Italy use more canned tomatoes than any other countries. The vegetable grows to great perfection under Italian skies and the people of Italy use tomatoes in many ways.

The finest of sauces and catsups as well as pickles are made from tomatoes, ripe and green. It is the most economical of all canned foods, and has been called the "poor man's meat." The packing statistics during the past few years are as follows:

	Cases of 2 Doz. No. 3 cans each.
Total pack in United States 1901.....	4,268,221
Total pack in United States 1902.....	9,282,812
Total pack in United States 1903.....	10,157,615
Total pack in United States 1904.....	8,516,846
Total pack in United States 1905.....	5,555,516
Total pack in United States 1906.....	9,074,965
Total pack in United States 1907.....	13,467,476
Total pack in United States 1908.....	11,479,000
Total pack in United States 1909.....	10,984,000
Total pack in United States 1910.....	9,235,000
Total pack in United States 1911.....	9,749,000
Total pack in United States 1912.....	14,022,000
Total pack in United States 1913.....	14,206,000

The figures quoted include No. 10 and No. 2, as well as No. 2½ sizes, all reduced to their equivalent in No. 3 cans in order to simplify comparison.. The largest production or output of canned tomatoes comes from the States named below, the first named being the largest producer, and the others in order as written, viz.: Maryland, California, Delaware, Indiana, New Jersey, Virginia, Utah, Ohio, Missouri, Kentucky, Tennessee, New York, Colorado, Pennsylvania, Illi-

nois, Michigan, Iowa and nearly every other State in the United States to a greater or less extent.

Primitively tomatoes were what is known as hot packed, that is to say, boiled in a kettle and then sealed in cans, processed, etc.; but that method has not been in vogue for many years and now the aim is to pack them as nearly solid and whole as possible.

The standards for quality in canned tomatoes adopted by several associations of canners are as follows:

Adopted by Tri-State Canners' Association, Maryland, New Jersey and Delaware (No standard adopted for fancy grades), by Ohio Canners' Association and by Indiana Canners' Association.

Weights as given are the minimum. Contents of can drained on one-quarter-inch wire mesh flat screen for two minutes; 98 per cent. of shipment to comply with stipulations; 5 per cent. of shipment considered fair average for testing.

No. 3 Standard.—Gross weight, 37 oz., and 19 oz. of average ripe tomatoes; not necessarily all red.

No. 3 Extra Standard.—Gross weight, 38 oz., and 20 oz. of well selected ripe tomatoes.

No. 3 Fancy—Gross weight, 38 oz., and 20 oz. of hand-packed, whole, ripe tomatoes.

No. 2 Standard.—Gross weight, 23 oz., and 12 oz. average ripe tomatoes; not necessarily all red.

No. 10 Standard.—Gross weight, 118 oz., and 64 oz. average ripe tomatoes; not necessarily all red.

The Tri-State Canners' Association revoked above standard January, 1914.

Wilmington, Del., January 29, 1914.

Whereas, the Standards for Canned Tomatoes suggested by the Committee of this Association January 28, 1909, have not to any considerable extent, been accepted and used by the members of this Association in their contracts for the sale of their goods; and,

Whereas, the Agricultural Department at Washington, D. C., under F. I. D. 144, have a Regulation that is far preferable to any Standard based upon net weight of solids; and,

Whereas, the National Canners' Association has appointed a Committee to formulate a definition for a uniform Standard, therefore:

Resolved, that the action of the Tri-State Packers' Association, as of January 28, 1909, be, and the same is, hereby withdrawn and their Committee instructed to co-operate with the Committee of the National Canners' Association for the adoption of a National Standard.

For a copy of Food Inspector's decision 144, above referred to, see Chapter LXV.

Tomatoes are also packed in 5-inch, 5½-inch, 5¾-inch and 6-inch cans, and a few in No. 6, or half-gallon, and No. 1, 1½ and 2½ sizes, as well as in individual sizes; but all these sizes are irregular and a matter of special contract.

The sanitary or solderless can is being very largely and generally used in packing tomatoes—especially the fancy qualities, which are packed red ripe and as nearly whole as possible and must, therefore, be hand-packed instead of machine filled.

Tomatoes produce heavily and are easily cultivated; but they require a large proportion of hand labor in canning, more so than peas, corn or string beans; and in fancy grades as much as peaches or pears.

There are numberless varieties grown, as nearly every packer believes he has the best variety and seed. The Stone tomato is a round, smooth, solid variety, and peels and cores nicely. The process of packing is not different from the general (which has frequently been described), except as to the peeling of tomatoes. They are scalded in live steam, then peeled by hand and put in cold water before being filled in cans. The standards and extra standards, packed in capped cans, are machine filled and, of course, are much broken in filling.

Buying Points.—See that your contract not only quotes the grade but also specifies "subject to buyer's approval of samples," as there are many varieties of standards; and the standards established by the packers are prudently very indefinite as to details.

For illustration, the peeling may be irregular; a too large proportion of green pieces may prevail; the stock may have run so green that the cores had to be cut out so deeply that all the seed cells are broken and thereby the goods are caused to look like a can of soft pulp and seeds; or the goods may be hot packed by some fellow who hasn't anything much but a shed, a kettle and a retort.

There are hundreds of irresponsible and incompetent packers in the canned tomato business.

Many instances of improper or insufficient sterilization occur every year and some fence corner packers slap the labels on the cans before they are cooled, load them, and draw a sight draft against the shipment in order to get money to continue packing. Then, if you pay the draft and the goods arrive with about six swells and many rusties to the case, it will be sometime before you get your money back.

Look up the rating of the cannery you place your contract with and pay a few cents more if necessary to a responsible party. The "will of the wisp" fellows frequently do not last long enough to permit you to collect for your swells, and they are hurtful to the canning business.

If buying for your own label, contract for a pinch of salt in each can, as it sweetens the flavor and counteracts undue acidity. In sampling, taste the flavor.

In buying fancy stock see that the goods are packed as near red ripe as possible. Do not require that they be too near whole. A ripe tomato is preferable to a whole tomato partly green, and tomatoes must be packed somewhat green or unripe if they stand up firmly whole in the can or when poured out in a dish.

Selling Points.—In showing tomatoes cut your can on the side. Nothing is so strong a proof of inexperienced salesmanship as a can cut on top. It always gives a bad impression.

Spoon your sample from the bottom. That is to say, lift the contents gently above the liquid, but don't stir them up or pour them out if you can avoid it, as the green pieces or badly peeled pieces may be at the bottom. Sell as few standards as possible and work hard to get your buyer to take extra standard and fancy grades.

In showing your fancy grades of tomatoes, get a white enameled lined pan or a glass dish; cut the can on the side all the way round from seam to seam, and then hold your hand over the tomatoes and let the contents slide out gently into the pan or dish. The tomatoes will hold their shape that way, and it is best to pour off a little of the water before pouring out the tomatoes.

The canned tomato is the largest seller in the canned foods line and, by careful handling and study, can be made very profitable to both wholesaler and retailer.

Any donkey can sell standard tomatoes or granulated sugar at cost if you will pin an advertising price tag on him and hitch him in front of your store; but it takes salesmanship to sell high grade and profitable goods.

CHAPTER XV.

CANNED SALMON.

The canned salmon industry has existed in the United States more than 60 years. Previous to that time a few salmon were caught and canned on the Atlantic Coast. In 1852 William Hume, with two associates, James Booker and Percy Woodson, established the first salmon cannery, a very crude affair on the Sacramento River, just opposite the city of Sacramento, then a mere village. In 1856 he associated with himself Andrew S. Hapgood and his brothers, John Hume and George W. Hume, also embarked in the salmon canning business on the Sacramento.

From this humble beginning the industry of canning salmon has grown to enormous proportions. The annual pack is now more than

seven million cases of salmon, containing each four dozen 16-oz. cans, and salmon canning is one of the greatest food-producing industries of the world.

The demand for canned salmon has grown gradually so that people are now familiar with the splendid value of the product. A can contains 16 oz. net of solid, wholesome, nutritious and palatable food, which is of far better economical value than meat. In the introductory period people had to be educated to use canned salmon, and at several stages of the process there was an overproduction and periods of great depression and loss.

The high prices of what are usually termed meats and the persistent and intelligent advertising by salmon packers, together with their conscientious adherence to putting quality into their cans, has now brought the demand to such a point that it is no longer a question of how much salmon can be sold. The anxious inquiry on the part of the dealer, is to how much salmon can be produced and what portion of the production can he obtain.

Governments, national, state and foreign, are taking cognizance of the importance of this valuable food resource; and laws calculated to protect salmon from extermination, as well as government and private hatcheries for the propagation of salmon, are now effective and numerous.

I shall not treat the varieties of salmon caught and canned from a scientist's standpoint, giving to each its ichthyological scientific name, nor shall I enter into the deeply interesting history of the fish and the mystery of its life and being. The commercial and utilitarian point of view is the one my audience is chiefly interested in, for they are dealers in and distributors of canned salmon.

Salmon is packed in three standard sized cans: 1 pound tall, 1 pound flat, and ½ pound flat. The 1 pound tall is the chiefly important product and is packed and filled almost wholly by machinery. The flat cans, 1 pound and ½ pound, are hand-filled; therefore canners are indifferent about packing them as they are more expensive proportionately because hand packed.

On the average, the packers of canned salmon far surpass all other canned food packers in the carefulness of their work. Their labels are neat, their cases are heavy, strong and handsomely stenciled, their cans are usually lacquered to protect them from the rust; and the highest regard is paid among all salmon canners to cleanliness and wholesomeness. The greatest efficiency and perfection in putting their product on the market is also sought for.

The Columbia River packers can the Chinook or Quinnat salmon. It is a fish that averages large, and, in perfection, is of superb quality, as to texture of flesh and richness of flavor. It is of rather a bright pink color, the fish averaging about 20 pounds, but sometimes running

as heavy as 80 pounds. The same identical fish is caught in Puget Sound, where it is known as Spring Salmon; and in Alaska, where it is called King Salmon.

The paramount objection to fine salmon is that the salters and picklers now take the largest and finest fish and leave the smaller fish to the canners—and these smaller fish are not so desirable for canning. Then, as spawning progresses, these fish undergo a physical change and the meat begins to turn white, sometimes running white meat on one side like codfish and beautiful pink on the other—which fault it is difficult to detect. The pack on the Columbia River is quite regular each spring, but is constantly decreasing in quantity as fish grow scarcer. The Columbia River salmon is losing its former great popularity for the reason mentioned, there being a decided preference for deep red colored salmon.

Saukeye salmon, or Sockeye as it is usually but improperly written, is a name applied to the fish which is so largely packed on Puget Sound and on the Frazer and other Canadian rivers. It is a smaller fish than the Chinook, averaging only about 8 pounds, and its habits seem to be different from that of other species of salmon as it runs heavily in rivers opening into Puget Sound in quadrennial periods, running lightly in the off or lean years. The quadrennial periods occur the years after leap year—for illustration, 1905, 1909, 1913, 1917, etc.

In Puget Sound and its tributaries this fish seems to run fatter than in Alaskan waters and to be of a brighter, livelier red color than Alaska canned fish. Then the season is longer and canners can pack with more care and attention to details on the Sound than in Alaska, where the work must all be done in about 30 days.

Consequently, Sockeye salmon packed on the Sound or on Frazer River will be found to be richer in oil than Alaska-packed red fish, a piece of the belly fat being put in each can to produce oil. This is not done at the Alaska canneries. What is called Standard Red Alaska salmon is precisely the same fish as the Saukeye, Blueback and Red Fish. The product of the Puget Sound canneries brings a higher price for the reasons I have mentioned.

The season for packing the fish in Alaska is very brief. Vessels usually leave San Francisco in May, fight their way through the ice in Bristol Bay, and arrive at the canneries in July. They leave in August to avoid being frozen in the ice, arriving in San Francisco in September and October. They take all their supplies and labor with them, and bring back the canned fish and their operatives.

Medium Red, or Cohoe, or Silver salmon is very similar in size to the Red Salmon. The flesh of the fish is of excellent quality and flavor, but paler than that of Red Alaska or Saukeye. It runs or spawns late in the fall and close to the sea, in fresh water, and is

canned in a limited way in Alaska, more freely on Puget Sound. There are several other designations for this salmon, viz: Oregon Red, etc.

The Pink Salmon is a small fish, averaging about 5 or 6 pounds. It is more numerous than all other kinds of salmon combined. It swarms in the waters of South Eastern Alaska and Puget Sound. It is of softer flesh than other varieties and is a light pink or brownish color when processed in a can. It is nutritious and of good food value, but has little or no oil.

The low price at which it is sold makes this salmon a splendid food value. It runs in Alaska every year, but on Puget Sound only every other year. The run on the Sound was and is as follows: 1909, 1911, 1913, 1915.

The Chum Salmon is a little larger in size than the Red Alaska or Saukeye Salmon, averaging about 10 or 11 pounds, and by some scientists is not regarded as properly belonging to the Salmon species.

It is said to be a good fish when fresh, but very soft and mushy when cooked, and of pale color. The canned Chum or Dog Salmon, as it is frequently called, is of a dirty white color and has a rank, muddy flavor.

Buying Points.—For your own label, buy salmon of packers of reliability and established reputation. Be careful to avoid the canned salmon sharks who deal in do-overs or off grades of salmon, canned after having been too long out of the water. Nothing is quite so mean or trouble producing as a lot of salmon which has do-overs or unsound cans mixed in, and there is no way to separate the good from the bad. Out of each shipment received cut freely a number of cans from different cases. Cut the can on the side near the top, from one side of the can seam to the other, and the contents will then slide out into a pan. Break up the salmon and see that it is not what is known as tips and tails, that is, consisting of the extreme ends of the fish near the head and tail. Also ascertain if the bones have been cooked soft, which is an evidence that it has been safely processed, and see that the meat is comparatively free from bruised pieces. The richer in oil the salmon is, the better the flavor usually. Do-overs cannot be told by the punches or vents on a can. Many cans are tested, revented and resealed, and are perfectly sound and sweet, though showing several resoldered vents. The test for unsound salmon is the nose. Any good can of salmon when first opened will exude a little gas and smell, but it disappears at once. If the salmon is unsound, it will continue to stink for hours. It does not hurt canned salmon to freeze.

Selling Points.—Cut salmon on the side, preferably at the end which has been upward in the case, or on the shelf, as the oil rises and will show at the top of the can.

If it is stored in a cold place and you desire to show it to particular customers, have a few cans kept near a heater, as cold congeals the

oil and prevents it from showing. Keep a few samples of your fancy grades in the warm salesroom on the shelves. Never cut a salmon can on top, always on the side. Nothing is so awkward to handle as a can of salmon cut on top.

When you open the can see whether oil or water shows before you lift the lid of the can; if oil appears, lift lid carefully and let the buyer look at it before it is poured out; if no oil appears, turn the salmon out and break it apart lengthwise of the can to show the color and fibre of the fish. Break the tail pieces down the center, along the line of the vertebrae or back bone, and show the inside. If the salmon appears white on the top, explain that fat is white and a piece is frequently found on top; and pour out and break up for color.

The one-pound flat cans are usually the best to cut and show, as they are filled by hand from the middle cuts of the fish and will generally show the best oil color and fibre. Most large houses now use Saukeye Salmon for their fancy private labels, as it is very handsome and many people choose with their eyes.

GENERAL INFORMATION.

Chinook Salmon is packed in June, July and August and is ready for shipment from July to September.

Saukeye Salmon is packed in July and August and is shipped from July to September.

Red Alaska Salmon and Medium Red Alaska Salmon are packed in Alaska in July, but do not arrive at Pacific Coast ports for rail shipments before September.

Cohoe Salmon is packed in October and shipped in October and November.

Pink Salmon is packed in August and September and shipped in October.

Chum Salmon is packed in November and shipped in December.

Many salmon canners print recipes upon their can labels. Here are some that have been tried and tested:

Salmon Toast.

To a cup of white sauce (see sauces) stir in a cupful of salmon which has been picked fine, and pour over rounds of crisp toast. This makes a delicious breakfast dish.

Broiled Salmon.

From one can of salmon remove skin, bones and oil. Pour lemon juice over the fish and let it stand ten minutes. Sprinkle with pieces of butter, pepper and salt. Turn out on broiler and broil over a clear fire. Care should be taken in removing fish from broiler. Serve with a drawn butter sauce, flavoring with lemon juice if desired. Garnish and serve hot.

PACKING SCENE IN KITCHEN OF A LARGE NEW YORK COMPANY

ATTRACTIVE DISPLAY OF CANNED TOMATOES

BOOTH ERECTED AND MAINTAINED BY THE
STATE OF MINNESOTA AT THE MINNESOTA CANNERS' MEETING

Scrambled Eggs and Salmon.

One can of salmon flaked, six eggs, six tablespoonfuls milk or cream, one-fourth teaspoonful of salt, cayenne pepper to taste, one tablespoonful of butter and chopped parsley. Put eggs into a bowl, beat slightly, add the milk, pepper and salt; put butter in saucepan and when hot add the eggs and other ingredients; when they begin to thicken add the salmon. Before taking from the stove sprinkle with parsley. Garnish with toast and serve hot.

Cold Salmon.

Canned salmon is delicious when eaten cold, just as it is taken from the can. It may be served with cold bearnaise, mayonnaise, tartare sauce, lemon juice or vinegar. Garnish with sliced hard boiled eggs and sprigs of parsley.

Salmon Loaves.

Use one stale roll for each person; cut off the tops of the rolls, scoop out the crumbs, brush inside and outside with melted butter, and put in a hot oven until they are a delicate brown.

Make a creamed salmon with chopped parsley and the whites of hard boiled eggs in it. Heat the cases, fill with the creamed salmon, cover and serve.

Salmon Chowder.

One-fourth pound pickled pork, two large onions; cut these fine and braise in same pot in which the chowder is to be made for about thirty minutes. Add one can tomatoes, one green pepper cut fine and one quart water or bouillon. Let this cook one hour. Add one pound potatoes cut in small pieces; cook twenty minutes and add one can of salmon, one pint milk or cream and a few broken crackers. Season to taste. This will serve about ten persons.

Hollandaise Sauce.

In a saucepan or bowl rub to a cream one-half cup of butter; add yolks of five eggs and beat well together; then add the juice of one-half a lemon, one-half teaspoonful of salt and a dash of cayenne pepper; pour in slowly one cup of hot water. Mix well, set in saucepan of hot water and stir constantly till it becomes like thick cream. Do not let it boil. Remove from fire and continue to stir for a few minutes. This is one of the best sauces for fish, hot or cold.

Sauce Tartare.

Yolks of two eggs, one-quarter teaspoonful salt, pinch of pepper, one tablespoonful of tarragon vinegar, one level teaspoonful of mustard, one teaspoonful of chopped parsley, one tablespoonful of chopped gherkins or capers. Mix yolks of eggs, salt, pepper, tarragon vinegar, and mustard; stir until smooth; then add a gill of salad oil drop by

drop. Stir in the chopped parsley, gherkins or capers with a fork. If the sauce is not sharp enough to taste, add more vinegar or lemon juice.

Drawn Butter Sauce.

One-half cup of butter, two tablespoonfuls of flour, sprig of parsley. Melt butter in stew pan, add flour and mix until smooth; then pour in gradually a pint of boiling water, beating each time.

White Sauce.

Two level tablespoonfuls of flour, two level tablespoonfuls of butter, one cup of hot milk, one-fourth teaspoonful of salt, pinch of pepper. Melt butter in saucepan until it bubbles; add the flour, salt and pepper; mix until smooth; then pour the hot milk in gradually, stirring and beating each time. Cook until it thickens.

The total pack of salmon, estimated in cases of four dozen one pound cans each, for a number of years has been as follows:

Total, year 1890, cases of 4 dozen.....	1,633,419
Total, year 1891, cases of 4 dozen.....	1,576,737
Total, year 1892, cases of 4 dozen.....	1,328,979
Total, year 1893, cases of 4 dozen.....	1,870,470
Total, year 1894, cases of 4 dozen.....	1,898,867
Total, year 1895, cases of 4 dozen.....	2,090,016
Total, year 1896, cases of 4 dozen.....	2,397,608
Total, year 1897, cases of 4 dozen.....	3,072,731
Total, year 1898, cases of 4 dozen.....	2,409,009
Total, year 1899, cases of 4 dozen.....	3,138,040
Total, year 1900, cases of 4 dozen.....	2,994,485
Total, year 1901, cases of 4 dozen.....	5,040,961
Total, year 1902, cases of 4 dozen.....	4,259,186
Total, year 1903, cases of 4 dozen.....	3,606,411
Total, year 1904, cases of 4 dozen.....	3,323,624
Total, year 1905, cases of 4 dozen.....	4,630,685
Total, year 1906, cases of 4 dozen.....	3,774,423
Total, year 1907, cases of 4 dozen.....	3,869,469
Total, year 1908, cases of 4 dozen.....	3,885,069
Total, year 1909, cases of 4 dozen.....	5,288,560
Total, year 1910, cases of 4 dozen.....	4,312,974
Total, year 1911, cases of 4 dozen.....	5,904,500
Total, year 1912, cases of 4 dozen.....	5,960,447
Total, year 1913, cases of 4 dozen.....	*7,767,000

*Estimated.

The detailed canning statistics will be found elsewhere in this book, under a special chapter on that subject.

CHAPTER XVI.

EMPLOYMENT OF SALESMEN.

The most practical, the most permanent and the most profitable method to employ salesmen in the wholesale grocery line is on part profits. It is fairest to the salesmen and fairest to the house.

Most of the large and thoroughly organized money-making houses in the United States employ their men that way.

Give a well posted man of good habits and character a certain list of customers, 50, 75, 100 in number, more to start with, but 100 is as many as he can wait on regularly. Don't give him a "territory." That is a foolish method. No man can sell all the good merchants in a territory or on a route. Some will not buy of him because others do, and some won't like him. Give a man a list of customers, and, if the towns are large enough, put another man on the same route to sell dealers that the first man can not influence.

Large metropolitan wholesale grocery houses usually give city salesmen 40 per cent. to 45 per cent. of the gross profits, and country salesmen, who pay their own traveling expenses, 45 per cent. to 50 per cent. of the gross profits on all business which comes from their list of customers, directly or indirectly. A salesman of known earning capacity is usually given a drawing account of so much a week, and settlements are made each three months. Under these arrangements salesmen stand 40, 45 or 50 per cent of the loss by bad debts made by them.

A new salesman of untried ability is usually "tried out" for a few weeks at his own expense, before being allowed a drawing account. No man without a fair practical knowledge of the line of goods should be encouraged or permitted to call on the trade, as he merely is an object of ridicule and pity to retail merchants, who at once note his ignorance. Men taken out of your salesroom, or packing room, or office, who have been brought up in the business, make the best salesmen; well-posted retail grocers the next best.

The part profit arrangement is the best for salesmen. They fix their own salaries. If they want more pay they can get it by doing more and better work. Their remuneration is automatic and self-adjusting, and they don't have to be eternally kicking for an increase in pay. They can get it without asking for it, merely by working for it.

Absolute good faith must be kept with salesmen who work under such an arrangement. A lack of confidence on their part is a bad condition of affairs.

Costs should be given on every article in your price books, as the men want to know how much they are making.

Keep close to your salesmen, treat them as personal friends, and take an interest in their welfare. Gain their confidence. It pays and pays well to do so.

Educate your men in your line. Furnish them with all the information about goods you can impart or secure for them. A well informed salesman is a "thing of beauty and a joy forever;" an ignorant, careless and indifferent salesmen, is a nuisance and a vexation.

The part profit arrangement requires the keeping of no expense accounts, for the salesman pays his own expenses.

It is usual to figure profits on the order or shipping blanks, with red or blue pencil or with ink (ink is better, as it can not be changed easily). There is no room for disputes if your profit clerk understands his business. Your salesmen should be permitted to refigure their profits if they choose, otherwise you can not hold their confidence and that is very important. Most of them are too careless to do so, however, unless they think they are being grossly outfigured.

If there is any adjusting of costs or prices to do in order to cover the difference between apparent and real costs, do it in your price book and change bulletins daily; don't let your profit clerk do it. Make him hew to the line and give him no information that does not go to the salesmen; but have him preserve carefully a file of all changes and costs, with dates, so as to sustain himself in any argument or difference of opinion. It is best, also, to arrange with him to take a calling down good naturedly, though seriously, when he is caught in an error against a salesman. Give it to him hard in the salesman's presence. The profit clerk must be the "goat" in such matters and understand that it is a part of his duty and that he is paid for it.

Beware of special costs to favored salesmen. They are ruinous, and will keep the whole system of your business demoralized. Every man must be treated alike and it must be understood that your statements of costs are final and not to be discussed or debated. It is also essential to have a selling price and to enforce as close adherence to it as conditions of competition will permit. On your own brand or label, make the price absolutely undeviating and preferably designate costs on private labeled goods as a percentage below selling price rather than in flat figures.

Profits should be figured daily and kept right up to date. It is just as important as to balance the cash. You do not know which way the ship is drifting unless you take a daily reckoning.

Know every morning or afternoon what the figured profits were the previous day. At the end of the month, know what every salesman's profits were and in which department he made them and what the profits of each department were. Two clerks can do all the work. They can also put in the hands of the cashier each salesman's profits at the end of the week so he can draw his money on Monday.

Give each salesman a list of customers and do not let any other salesmen interfere with them. His list of customers is his "potato patch," let him hoe it, and the house take its share of the crop.

If he don't hoe it, take neglected customers away from him and give them to someone else, provided a customer has not been sold during 60 days, unless there is a good excuse. The house gets the benefit of mail, call or telephone orders, from buyers who are not on any salesman's list. Each department man and member of the firm should have a list of personal customers, whom he solicits by mail or waits upon when they call, and profits should be figured and an absolutely accurate profit account kept on every sale, including jobbing sales.

Where there is a loss on an order it should be so figured and deducted from the profit statement.

Keep a record of comparative profits from the same day and period the previous year.

A record of daily, weekly and monthly profits, percentages and sales, when once established, is invaluable, and as important for comparison as is a compass to a ship.

Do not attempt to figure profits on future sales or anything else until shipment is made or goods delivered. There are too many changes which are apt to occur in an order. Cancellations, death, failure, depreciation of credit and other causes are apt to render the business void.

It is best to leave the profits on future sales uncomputed when salesmen can afford to do so until the goods are delivered. Make them a kind of savings bank for salesmen and a bond to tie them to a house. When a salesman has a big line of futures out, he will hesitate to change or accept offers from other employers. Then, when his profits come rolling in heavily in September, October, November and December, he is in a good humor January 1st and disposed to renew his contract.

CHAPTER XVII.

SELLING POINTS FOR SALESMEN.

If you do not know more about the goods you offer than the man you are offering them to, you are at a great disadvantage. To counteract that disadvantage, learn all you can about the article you are offering before you visit the buyer.

Get the information from your buyer or department manager. Ask him questions. Get him to cut a sample can of the goods and to compare it with the quality of some competitive brand, which you know you will be likely to "bump up against." Learn where, how and

when the goods are canned and in what respect the article you are offering excels. If it apparently has defects or bad points, ask about them and get the argument that will excuse or justify them.

Don't try to learn the entire canned foods line in a day or in a week. Learn one thing at a time and learn it well. Watch the cutting or sampling table closely and inspect every can that is cut if possible, and thereby learn what the quality, grade and selling points of the stock are.

Always assume a positive attitude toward a buyer, not a negative one. It is a common fault for a salesman to say to a buyer "I guess you don't want any canned foods today, do you?" or, "I reckon your stock of canned corn is full, huh?" A buyer will invariably agree with a negative salesman and give the next positive salesman who comes along an order for the very article the negative man inferred that the buyer did not need.

Don't waste a busy buyer's time. Talk your goods and prices and show your samples and get out. Nothing exasperates a busy man more than to have his time wasted with stale jokes and rancid stories, and the busy buyers are the boys who do the business and whom it pays to please and cultivate.

I saw a card on a buyer's desk once which read as follows: "What is a sociable man? Answer—A man who, when he has a half hour to spare, inflicts his company on a man who has not a minute to spare."

Selling goods is largely a matter of industry. Don't be a "rubber ball" salesman, just to hit and bounce off, but be positive, reasonably persistent, good natured and patient, and keep moving.

A salesman said to me, "I spent two hours with that fellow but couldn't sell him a thing." I replied, "You spent one hour and three-quarters too long with him. He is a busy man, knows what he wants, and will probably never forget or forgive you for wasting his time." Another, a city salesman, said to me: "I made fifty calls yesterday and sold only two little bills." I replied, "You made thirty-five calls too many. If you had made fifteen and been patient and reasonably persistent you would have done better."

In seeking knowledge about goods, don't do so for the purpose of arrogating superiority for yourself and belittling your customer. If he thinks he knows more than you do and is egotistically difficult, ask him questions, which is the Socratic method of reasoning, until you lead him into deep water over his head. This will humble him without offending him. Pretend to be seeking information from him. You will soon have him floundering.

Don't cut a sample of canned foods for a small buyer, who merely wants a case or two. Show him the label and describe the quality to him. Samples are expensive and should be used only upon buyers

who order freely, either to induce them to purchase or to start your line in a good store.

Never cut a sample when you can sell the goods without doing so and never propose to compare samples with another line unless you are sure of your superiority. More sales are lost by comparing qualities and cutting samples than are made.

If your can opens better than that of the retailer, you vex and humiliate him and he usually will not buy. If your can opens poorer than his, he humiliates and ridicules you and don't buy.

Frequently, however, it works the opposite way and the dealer will buy when you show the best value; but never when you show the poorest. Therefore, you run a chance always when you cut a sample of losing a sale as well as of making one. The wise salesman takes no unnecessary risk or chance.

If, however, you are sure of your quality and its excellence, cut your can and call the attention of clerks and customers, who are present in the store, to the quality—and make a noise about it.

Canned Corn.—The selling points on canned corn are freedom from acid stain around the inside of the cap of the can, tenderness of the grain, freedom of the grain from tough skin, an attractive consistency, not too wet or too dry, the fill of the can, and the natural sweetness or flavor and brightness of the color. All corn should have some sugar and a little salt in the cans; but too much of either spoils the natural flavor and too much sugar darkens the color. A very heavy cook or a failure to cool the cans promptly after processing, will darken the color decidedly.

Before cutting a sample can of corn, shake it and shake it hard. This will give it a good consistency. Cut your cans on the side always. Insert the can cutter just beyond the side seam and cut evenly around the can, but be careful—very careful—not to let the can slip, as the ragged edge of the tin will make an ugly and painful wound. If you don't know how to open a can on the side, ask the department man to open it for you. Never show a can of goods by opening it on the top. It always looks slack-filled.

Always, in selling, cut a can of corn on the bottom or end opposite the cap; for if there is any acid stain or discoloration, caused by the injection of muriatic acid (used as a flux to fix the solder around the cap). it is at the cap end.

Spoon corn up from the center of the can to the top. It is always of brighter color in the center than elsewhere as the cooking has not discolored it there. Learn from your buyer or department manager how to distinguish between the different kinds of corn—Crosby, Evergreen, Zig Zag, Mason's, Shoe Peg and Country Gentleman being the most commonly grown varieties.

Canned Tomatoes—The selling points are: Fill of can, freedom from green pieces, cores or skin, and the flavor. This last is very much improved by the addition of a little salt when packed. Never pour a tomato out into a pan. It spreads too much and looks badly unless the goods are hand-packed whole. In that case put one hand over the fruit and empty out carefully, so as to keep it from spreading out too much. Look carefully for black, sunburned pieces of skin and taste carefully to detect the presence of rotten tomatoes.

Don't Shake the Can—In fact, all canned foods show better in the can than when poured out (except firm and handsome fruit), unless the can is slack-filled. Even then a buyer should be permitted to see the fill and know just what he is buying.

Canned Peas.—Never, never shake a can of peas. Clear liquor is a desirable selling point and shaking stirs up all the sediment and muddies the liquor. The selling points are: Uniform size or accurate grading, clear liquor, freedom from sediment in the can, freedom from pieces of pods, leaves or black peas, freedom from hard or yellow peas, tenderness and sweet flavor.

Canned Salmon—Cut salmon cans on the side, otherwise you will have to tear the contents to bits to get them out. When cut on the side, salmon will slide out in a solid piece. If the can has nice red oil, show it before you pour the salmon out; then, after the salmon is in the pan or dish, break it up. There is always some skin or bones in salmon; break up the flakes and show the color. The selling points are richness in oil or fat, attractive color, fresh nutty flavor, and freedom from the smell or taint caused by packing stale fish.

These selling points wil lead to the observation of others all along the line of canned foods. It is impossible in a single chapter to cover the points of each article, therefore I have given merely the four great staples,—corn, tomatoes, peas and salmon.

Finally—Gain your buyer's confidence by always telling him the truth about goods, so that he will trust you and your truthfulness and judgment rather than trust his own. This policy always wins and never wears out.

Don't induce your buyer to take more goods than he ought to buy at one time. Don't exaggerate the merit of the article you are showing him, and don't induce him to buy speculatively by making him believe that the market will go higher, unless you have good information and reasons that make you believe it will.

Don't let every little complaint about canned foods excite you or discourage you. Canned foods are perishable. A case roughly handled will cause the solder or a seam to break and the contents to leak on other cans and spoil the labels and rust the cans. Such goods can be returned, allowed for, and credited; but because one case is found

in that condition there is no reason for supposing that the entire lot is bad. Keep cool and examine a few cases of the lot with the customer before allowing a lot of goods to be condemned because one case is damaged.

CHAPTER XVIII.

STRING BEANS.

Much more care and attention is being given to the cultivation and canning of string beans than formerly, and the article is consequently growing in public esteem and consumption. Many years ago string beans were canned as an article with which to fill in intervals between more important products. So much hand labor was essential to handling and properly grading string beans that the expense made them unsalable.

Now, however, methods of cultivation have been greatly improved and grading machines have been so perfected that fine qualities can be produced and sold at a reasonable price.

Beans are of very ancient origin and were cultivated and are mentioned in the history of Asia and Southern Europe, back into the distant centuries. They are regarded as highly nutritious and wholesome and when properly prepared are most palatable.

They are of the botanical order of Leguminosae and the plants are of annual growth, reaching a height of from 2 to 4 feet. Many of the packers of New York, Michigan and Wisconsin give great attention to the cultivation and canning of string beans, and Maryland packs some of fine quality; but the best climatic essentials to packing fine string beans are found north of latitude 42, as a cool temperature and slow growth are desirable.

String beans yield prolifically and such a graduated succession of crops is possible that the canning of them can be conducted longer than that of most any other green vegetable. Formerly they were gathered and preserved in casks so that they could be canned all during the winter; but as it was necessary to use preservatives, now prohibited by the pure food laws, that method has been abandoned.

The variety most generally used is the 1000-1 variety of green Refugees, which owes its popularity to the fact that it is not only the most prolific yielder, but is the best of the different kinds in point of flavor and appearance. The beans are picked from the vines by hand and delivered at the factory. There the first operation is the "snipping." This is done by women. These, with their fingers, break off the stem and tip end of each bean and remove the string, if any has developed. The strings are usually found only in the large sized beans; but, occasionally, when the beans come into the factory in a

very crisp condition, the string breaks when the ends of the beans are removed, thus remaining on the large size of whole beans as well as on the cut beans.

The next operation is the grading of the beans by special machinery into five different sizes. The largest size is cut into pieces about an inch long by a special machine. This is done for convenience in filling the beans into the can and to counteract the stringiness of the larger sizes or older beans. The other four sizes are canned whole..

After this the beans are blanched or given a short cooking before being filled into the cans. This blanching serves the double purpose of a thorough cleansing of the beans and of reducing them to a pliable condition so that they can be packed closely into the cans. The cans are then filled with brine made from salt, sugar and water, sealed, and given the required process.

While the operation of handling and canning string beans is very simple, yet a large part of the difference which exists between fancy and ordinary stock is due to the care with which these few simple operations are performed. Michigan, New York, Northern Ohio and Wisconsin are provided with splendid climatic conditions for the growth of string beans.

The four sizes of string beans are called No. 1 Sieve, or Tiny; No. 2 Sieve; No. 3 Sieve; No. 4 Sieve, all whole; while the Cut Refugee grade includes all the largest or No. 5 size. Sometimes a special pack of cut string beans is made from the No. 4 size, especially if that size is inclined to be rather stringy.

The standard for string beans, as established by the Baltimore Canned Goods Exchange, is: "Cans full; beans young and tender and carefully strung; packed during the growing season."

The methods and conditions described apply to Golden Wax or White Wax and Crystal String Beans as well. More care, however, is required in growing and canning white string beans. They must be processed more carefully to avoid turning them red in the can and they must be carefully hand picked to remove the specked or imperfect beans.

The favorite methods of cooking string beans are to stew with cream or to boil with bacon. There is otherwise a natural rawness of flavor which the cream or bacon will counteract.

In judging the quality of canned string beans, see that they show:

Freedom from strings, from black specks caused by the sting of an insect, and from knotted, twisted or imperfect beans. The liquor should be clear, the cans well filled and the beans free from red discoloration from overcooking. Beans which have been allowed to grow too large and old before they are canned will not only prove

tough and stringy, but the matured seed will discolor and show through the pod and look very ugly. In fact, such beans are not fit for human food.

If buyers and salesmen exercise their prerogative of refusing to place before the consuming public string beans of inferior quality, acting in this capacity within their rights and duty as censors of the public appetite, the consumption of this splendid vegetable will rapidly increase. The grade of cheap, whole string beans put on the market at from 45 to 60 cents per dozen, is unfit for human food, and every can sold will hurt the trade of the retailer who sells it. It will also prejudice the consumer who buys it against canned foods generally. The grade should be entirely discontinued and "Cut Refugee" string beans sold at retail for ten cents the can instead. The grade referred to is usually packed from "common cornfield beans," not from the Refugee or transparent varieties.

CHAPTER XIX.

A MODEL BUSINESS ORGANIZATION.

I have been asked to name the most important basis of strength in a successful business organization. From the breadth of my experience and observation I reply without hesitation, "Perfect discipline through cheerful co-operation."

The great steamship casts off her lines, and moves majestically out to sea "a thing of life" and a perfect business organization. Every man in her crew, from commander to stoker, is doing his work promptly, cheerfully, realizing its value and the necessity for its being well done in order that the great ship may convey her cargo of goods and lives safely to their destination. Perfect, loyal, cheerful discipline is there.

Modern business methods in wholesale houses are essentially based upon the well-known principle of political economy called "Division of Labor." There must be numerous departments and many department heads in such a business, each of the last a specialist in his line of effort, and yet it must be conducted upon the principle each for all and all for each." Petty jealousies or distrusts, idleness, fault finding, the evasion of responsibility and the endeavor to avoid blame by placing one's mistakes on another's shoulders, disloyal criticism, and indifference to the general welfare of the whole business —these have no place in modern business houses and they cause enormous loss and waste of power, as friction does in machinery. Every part of the machinery, even the most humble and unimportant, must do its work loyally.

Mutual and individual interest should prompt every one connected with a business to be loyal, earnest, patient, cheerful, and at all times

to cultivate a spirit of helpfulness toward associates—just as if part of the capital investd in the business was his own. It is, in fact, for the dollars representing the capital stock are only a part of the capital of the business.

The hands, the hearts, and the brains of those who help to conduct the business are an important and essential part of the capital, and the organization represents to the employee who is working for a salary his opportunity in life,—not only for a livelihood for himself and for those dependent upon him, but for the exercise of his abilities and the achievement of his ambitions, and for advancement, progress, comfort, and happiness.

The man who draws a salary of $25.00 per week from a business, or $1300.00 a year, has an investment in that business represented by his work and abilities equal to $26,000. This is paying him a net dividend of five per cent., free from taxes and absolutely safe from the ordinary risks of depreciation.

Why should he not guard and cherish it, and try to increase it by making the business more valuable through his loyalty and broad and helpful usefulness?

And while there should be emulation and rivalry in a business organization, it should be conducted along friendly and amicable lines, each man striving to prove his superior usefulness to the business, not alone in doing his part well, but in helping others to do theirs acceptably.

This should be encouraged and cultivated by the officers and managers of a business in every way. There is, in military organizations, an intangible sentiment which the French call "esprit de corps," meaning the spirit which animates the organization. It is that which leads the soldier to volunteer quickly for the most arduous and dangerous duty; to regard jealously the honor and the reputation of his regiment, and, shoulder to shoulder with his comrades, to follow his officers into the direst dangers.

A spirit of restless dissatisfaction and a willingness to change frequently from one house to another, unkind or abrupt treatment of associates or other employes, an impudent or swaggering manner toward superiors, are all proof of weakness, narrowness, selfishness, or undue self-appreciation.

The soldier who is suspected of disloyalty or of disaffection is never promoted to a position of greater trust or honor.

CHAPTER XX.

APPARENT COSTS AND REAL COSTS.

Owing to the conditions of competition and the selling basis thereby established, the wholesale grocer who gives out flat or apparent costs on goods will go broke; and if he is engaged in this practice he is now on the road to bankruptcy.

This should not be the case, but it is, and it is a condition not a theory which the wholesale grocer bumps into when he does not wisely adjust his cost prices on an average basis.

By this I mean to say that, in the cause of self-preservation, it is essential for wholesale grocers to give out and to figure actual costs on their goods and not apparent or flat costs. In order to do so, they must estimate the actual expense of doing business and adjust that expense partially before they give out cost prices to salesmen.

I have in my experience been in confidential positions with four or five wholesale grocery houses, all of which were "money-making houses." They sold per annum, respectively, one and one-half million; six millions; five millions; two millions, and three millions per annum.

None of these houses ever succeeded in getting its percentage of expense upon sales lower than eight per cent.; and they graded from that figure to nine and one-half per cent.

It is well known that salesmen cannot be induced to believe that it costs eight to nine per cent. on sales to conduct a wholesale grocery business; but it does, and costs must be figured accordingly.

This percentage of the cost of doing business of from eight to nine and one-half per cent. cannot be escaped. A large volume of sales will not obviate or reduce it; for, as the sales increase, the expenses grow—generally increasing in percentage of expenses as sales grow larger.

The reason for this follows: A house with an established trade, extending into natural or tributary territory, selling the usual proportion of goods in the various departments, incident to the consuming taste and capacity of the territory, is doing business along the lines of least resistance, and at a minimum expense. This is seldom or never below seven and one-half per cent. on sales. When that house begins to make efforts to increase its business and extend its trade, it rows against the stream, and it requires more power (or expense) to force trade into competitve territory or beyond natural territory than otherwise.

Then the effort to increase business is always made in the more profitable lines of goods,—teas, cigars, spices, extracts, canned foods, dried fruits, etc., not in sugar, flour, salt, etc., and it costs more to sell profitable goods than it does to sell the close staples. Conse-

quently, as a house increases its sales, it invariably increases the average percentage of its expenses on total sales, for greater credit risks and greater losses are taken.

For illustration, if a house does a business of one million a year, confining its operation to nearby territory, and having a considerable proportion of mail order and salesroom business, and call order business on which no cartage is incurred, it might be able to get its expenses down to seven and one-half per cent. on sales. If it did, it would be more fortunate than any house I have lately heard of in the wholesale grocery line.

Here would be about the expense percentage in the history of the progress of such a house toward a larger volume of sales, viz.:

Sales of $1,000,000 per annum.	Expense....	.07½%
Sales of 2,000,000 per annum.	Expense....	.08¼%
Sales of 4,000,000 per annum.	Expense....	.08¾%
Sales of 5,000,000 per annum.	Expense....	.09%

The percentage of profit would of course be increased with the volume of business, but not proportionately with the increase of expense percentage.

It is sufficient to conclude, however, that apparent and actual costs are far apart in the general conduct of a business, and that the incredulity of salesmen, their lack of courage to ask and get prices, their predisposition to favor their customers, their inability to see beyond the mere fact that they are making a profit, no matter how small, their reluctance to contend for a profit and ask and get full and fair prices, their predisposition to fill up their trade with close staple goods and ignore the more profitable lines,—all these conjoin to keep their percentages of profits down to six and one-half, seven and eight per cent. on sales. The man who sells a full line of groceries at wholesale and makes nine per cent. is a notable exception and a "cracker-jack" if he has a trade of $50,000 or over.

Analyze these figures, or percentages of profit, and you will find that they are less than the actual cost of doing business and will produce a loss instead of a profit. What are you going to do about it?

There is only one thing that can be done and that is to give out actual costs instead of apparent costs. Is it honest when your men work on part profits or when their salaries are adjusted by the profit they make?

It is not only honest, but absolutely essential to the success of your business and the permanency of their employment. Any other course would be dishonest to your business associates, to the stockholders of your corporation, and to yourself.

Any sensible reasoning and fair minded salesman knows that flat costs are not actual costs. He knows also that the percentages

of profit must be averaged in the wholesale grocery business; and that the loss incurred in selling sugar on a margin of two or three per cent must be counteracted by an added cost on other lines, for it cannot, under existing trade conditions, be added to the cost of sugar.

I have never failed to convince a salesman of the justice and the fairness of such an adjustment of costs, if he had intelligence enough to understand facts and figures, logically presented.

My experience warrants me in stating that canned foods will bring a profit over actual costs of ten per cent. I mean that the figured profit must average ten per cent. and that the difference between flat cost plus the cost of freight and cartage into the store, and actual cost, should average not less than five per cent. When house brands or labels are used, this adjustment is simple and easy in its application; but when packers' brands are sold, without control of brands, it is very difficult, but it must be done.

The adjustment must be graduated according to the average of sales on each article in the canned foods line—and each buyer in the line must be his own adjuster. Some goods are used as leaders in some localities, while in other places they are profit makers, and the cutting is done on something else. Here is a scale that will work out a five per cent. average in most localities. (Flat cost means cost, freight and cartage into store).

Standard 3s, Tomatoes, add to flat cost 2½ cents dozen.
Extra Standard 3s, Tomatoes, add to flat cost 5 cents dozen.
Fancy 3s, Tomatoes, add to flat cost 10 cents dozen.
Standard 2s, Corn, add to flat cost 5 cents dozen.
Extra Standard 2s, Corn, add to flat cost 7½ cents dozen.
Fancy 2s, Corn, add to flat cost 10 cents dozen.
Seconds, 2s, Peas, add to flat cost 5 cents dozen.
Standard 2s, Peas, add to flat cost 7½ cents dozen.
Fancy 2s, Peas, add to flat cost 15 cents dozen.
California fruits, 2½s, add to flat cost 15 cents dozen.
Salmon, 1s Pink, add to flat cost, 5 cents dozen.
Salmon, 1s Cohoe, add to flat cost 7½ cents dozen.
Salmon, 1s Red Alaska, add to flat cost 7½ cents dozen.
Salmon, 1st Red Sockeye, add to flat cost 10 cents dozen.
Salmon, 1s Columbia River, add to flat cost 10 cents dozen.

From these figures other adjustments can be worked out by one's experience of the actual proportions of sales as to locality.

The canned foods line must bear its burden of the loss on the close staples and of those unenumerated and unobserved items of expense which but few houses take into account—like the expense of samples; the cost of swells and leaks that go over the time of guarantee and cannot be returned or collected for; reclamations from leaks, causing other cans to rust; excess of cash discount allowed retail buyers over

that obtained from manufacturers, and a large number of similar "unknown quantity" expenses not experienced until an inventory is taken, the books balanced, and profit or losses figured.

CHAPTER XXI.

LIMA BEANS.

These articles are for practical people engaged in buying, selling and distributing canned foods, and for busy men who haven't the time to spend in reading learned disquisitions upon the historical and botanical derivation of various articles of food. They do, however, want all the practical available information, that will help them in buying and selling canned foods; and it should be understood that these chapters are written by a practical man, engaged daily in buying and selling the articles of which he writes, and for people who are similarly occupied.

The packing of lima beans of late years has been largely confined to what are called the Henderson Bush Limas, although there are still packed some of the Large Butter Limas—which are grown upon poles, but which are scarce and are not very reliable or prolific bearers.

The Bush Limas are planted in rows about two feet apart and are cultivated very much like any other crop of beans or potatoes.

When they are in the right condition for harvesting, the vines are cut up with a bean sickle, conveyed to the canneries, and put through a viner or threshing machine and handled and graded by a method very much similar to that used in handling peas.

After they are graded, blanched and washed, they are very thoroughly and carefully hand-picked.

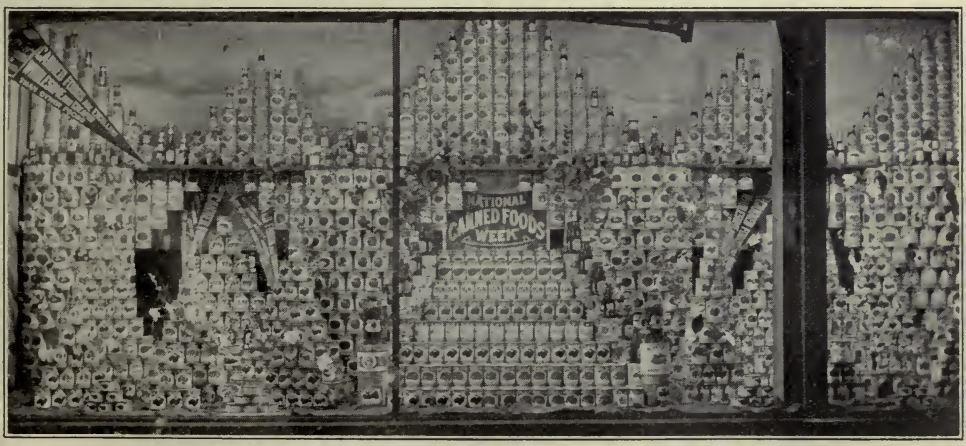
More labor and care is required in handpicking lima beans than peas. as, even when gathered in good condition, the limas have from 3 to 5 per cent. of white beans or premature beans, which must be picked out and canned separately.

After the limas are hand picked they are filled into cans by an automatic filling machine; but more care is required than in filling cans with peas, as the shape of the bean does not permit of such rapid or easy handling.

The beans are graded by the best packers into four sizes: Tiny, fancy, medium and standard or large. The four sizes are obtained by sifting the beans over screens with openings 24-32, 30-32, 31-32 and 32-32 of an inch in diameter.

Some green lima beans are packed or canned ungraded; and it is claimed that a better flavor is thereby obtained. Those so claiming hold that the tiny beans are too immature and the large too ripe, and

ATTRACTIVE WINDOW DISPLAYS



SWIMMIMG POOL IN A LARGE PENNSYLVANIA ESTABLISHMENT

A CLASS IN DOMESTIC SCIENCE

that the ungraded beans average a better and richer natural flavor, as do ungraded peas.

The white limas, which have been picked from the green, are packed separately and are labeled white limas and sold at a low price. Ohio, Michigan, New York, New Jersey and Maryland are the States which give the most attention to the canning of green lima beans and which, therefore, produce the best goods.

The Baltimore Exchange standard for green lima beans in cans is as follows: "Cans full of green beans, clear liquor."

Lima beans are packed in No. 10 as well as in No. 2 cans, but they are mostly packed in the No. 2 cans, as the sale for the No. 10 size is quite limited. Green limas are packed in clear water with about a 2½ per cent. salt solution, only enough water being used to cover the beans lightly and convey the sterilizing heat throughout the cans. Some packers use a little sugar in the solution.

There are some who prefer the flavor of the old fashioned Large Butter Bean or pole limas, claiming that it is much superior in flavor to the bush limas, and that it has a luscious richness or fatness which the bush beans do not possess.

The canned lima beans form a most palatable and nutritious article of food. and, now that they are being graded and packed with care, are growing rapidly in popularity.

Buying and selling points in canned lima beans are as follows: Uniform green color and freedom from white beans and broken beans. Uniform grading and freedom from irregularity of size. Freedom from the black or discolored liquor sometimes found in lima beans which have been packed in thin coated cans or which are several years old, as there is a natural acid in these beans which seems to dissolve the tin, and, coming in contact with the iron plate under it, discolors the liquor and even sometimes the beans.

Soaked lima beans are the dried limas, steamed or cooked and processed in cans. They are usually packed in a syrup composed of 2½ pounds salt, 4½ pounds corn starch, and 12½ gallons of water. They are very wholesome and palatable. They have more merit and flavor than nearly any other soaked or winter packed article in canned foods, not excepting pork and beans.

They must, however, be branded "Soaked" in all the States. They are packed and sold to quite an important extent.

It is a great pity that canned foods packers—or wholesale grocers for that matter—are not thoughtful enough to print several good recipes on the can labels of lima beans for their cooking and preparation, as there are many people, especially those of city raising or foreign birth, who do not know how to cook them. They should be highly

seasoned with salt and pepper, and plenty of butter or good cream should be used in cooking them.

If packers or jobbers or label makers would reduce some of the trade-marks (which mean nothing) and some of the undecipherable monograms and inartistic and irrelevant Buffalo, Bull, Dog, Bird or Negro heads and remove some of the impossible pictures of girls or farms or factories from their labels, merely putting an attractive vignette picture of the article on the can (the registered trade mark or design or word being reduced in size in order to make room for recipes), with the grades and the name of the owners of the label on the front, they could place a nice collection of practical and tried recipes on the remaining space of each label, and the consumption of the goods would be heavily increased.

CHAPTER XXII.

AMERICAN OR DOMESTIC SARDINES.

This industry, which has grown to be a most important one, was started in the United States about 1875. It is said that the packing of American or Domestic sardines was begun in a practical and business like way by Julius Wolff, of the firm of Wolff & Reesing, of New York City, about 1877. It continued a small business for five or six years, and developed slowly; but has now so grown that the total output aggregates about two to two and a half million cases of sardines per annum.

The fish caught and used for the packing of domestic sardines belong to the herring family and are said to be of the same species (Clupea) as the sardines of France, Portugal and Spain.

The fish are caught in weirs built near the shore in the bays of the North Atlantic Coast. Eastport, Maine, is regarded as the center of the industry.

These weirs are constructed usually of brush overlapped and intertwined. They are held in place by poles driven into the mud, the brush being built up so as to form walls around a water space with an entrance toward the sea. The rising tide brings the fish into these weirs and the ebb of the tide leaves them there, as the wings at the entrance are built so as to turn the schools of captive fish away from the open entrance. They swim straight ahead until they meet an obstruction; they then veer with the wings of the weir and follow their lines, never turning backward. Such weirs have been used for capturing fish from time immemorial. The principle is the same as is used in trapping salmon on the Pacific Coast, though salmon weirs or traps are made of woven wire and are much deeper and larger in every way.

After the sardines are trapped fishermen come with their boats and a long seine. This they draw around inside the weirs and contract gradually until they get the fish into a small space, when they are dipped out with large dip nets and dumped into the boats. In which they are either taken direct to the cannery or, being transferred into a larger boat, are thus conveyed to a cannery. Sometimes the smaller boats are towed to the cannery by a tug or steamer.

Most of the canneries are built directly upon and over the water, so that fishing boats can moor alongside and unload the freshly caught fish.

When the boat arrives at the cannery the fish are lifted out in large baskets and put upon small cars or conveyors and taken immediately to the cutting tables. Much of this work is done by steam power.

The center of the domestic sardine canning industry is at Eastport, Maine, though Lubec, North Lubec, Robbinston, Jonesport, Perry, Maine, and other towns are important.

In the process of canning the sardines pass from the scalers to the cutters. The latter remove the heads and the viscera. The fish are then put into nets, placed into running water and thoroughly washed. They are then placed in a vat of strong salting or pickling for about an hour, from which they are removed, drained, and placed on wire frames or flakes.

These frames or flakes are then placed in a revolving or rotary oven where the fish are dried and partially cooked. (Great care must be exercised in this process so as to cook them just enough and not to discolor them.)

After cooking the fish are removed to the packing room, where they are packed in cotton seed oil or mustard sauce, or spiced with cloves, mustard seed, allspice and bay leaves.

A few domestic sardines are packed in olive oil and put on the market at a higher price. The styles packed at present are about as follows:

One-quarter decorated drawn cans, keyless, oil, 100 cans to a case.

One-quarter decorated drawn cans, with key, oil, 100 cans to a case.

One- quarter plain cans in cartons, with key, oil, 100 cans to a case.

One-quarter decorated drawn cans, keyless, mustard, 100 cans to a case.

One-quarter plain in cartons, with key mustard, 100 cans to a case.

One-quarter decorated drawn cans, with key, mustard, 100 cans to a case.

Three-quarter decorated cans, keyless, mustard sauce, 50 cans to a case.

Three-quarter decorated cans, with key, mustard sauce, 50 cans to a case.

Three-quarter plain in cartons, keyless, mustard sauce, 50 cans to a case.

Thee-quarter decorated cans, keyless, spiced sauce, 50 cans to a case.

One-quarter decorated cans, with keys, tomato sauce, 100 cans to a case.

Three-quarter decorated cans, keyless, tomato sauce, 50 cans to a case.

One-quarter decorated cans with keys, smoked, 100 cans to a case.

When packed in the cans the sardines are put into a processing tank and cooked from one to two hours—depending upon the size of the can. They are then taken out, tested, cooled, cleaned and cased. Paper labels were at one time used on the cans, but no longer are.

Eventually the domestic or American sardines may be packed in olive oil, and with such care that they will be equal to the French, or Norwegian or Portuguese sardines, as packers claim that the fish all belong to the same species, the great prolific scientific order of "Clupea"—with which Providence has filled the ocean in myriads beyond human computation.

Buying and Selling Points—When buying domestic sardines examine them carefully for over salting. If the fish have been delayed in the packing and have been salted down, they will be hard and tough as well as salty. They should also be examined for over-cooking or too heavy processing, which makes them soft and mushy and sometimes destroys the shape of the fish.

The most popular and acceptable size for quarter oil domestic sardines is eight to twelve fish, but packers claim that five to six fish, owing to their fatness, have the best flavor and value. In mustard three-quarter sardines the larger fish are used.

The small difference of 25c. a case between key goods and keyless sardines is so trivial that no dealer is justified in continuing to handle the keyless goods, since they are so much more inconvenient to the consumer.

Packers were formerly in the habit of using a cheap quality of tin and a certain preservative in their pickle. This had the effect of dissolving the tin coating and infesting the contents with salts of tin. It was also ascertained that a certain kind of feed found in the viscera of the herring or sardines was unwholesome to those consuming them. The United States Government established rigid inspection condi-

tions in the year 1911; so domestic sardines packed that year and thereafter are likely to be free from such objections.

The industry is a great and growing one and destined to build up a grand source of food supply. The Pacific as well as the Atlantic Ocean teems with the fish; and a few canneries are now established on our West Coast. There will be more.

CHAPTER XXIII.

SWELLS, LEAKS AND RUSTIES.

A prolific source of loss and annoyance to wholesale grocers and canners is the imperfect processing, and the careless storage of canned foods, coupled with the use of a cheap quality of tin plate and with rough and careless handling.

Packers guarantee their products for certain lengths of time and agree to reimburse buyers for swells and leakers; but such guarantees frequently expire before the goods are sold and retailers bring back swells for redemption at most any old time. If jobbers do not accept and redeem them, they lose customers.

To avoid loss, a registration or card system should be installed whereby to keep record of the following facts: First—Each canned foods bill, when received, should be entered alphabetically as to the article, "corn," "tomatoes," etc., on a card, giving the quantity purchased, the price, the freight, the date of the bill, the date of expiration of the guarantee against swells, the packer's name and location, and (most important) the name and location of the party billing the goods. It is the case about half the time that the goods are not billed by the packers, but by some agent, broker, or possibly by some other than the canner, and swells can only be collected for from the party billing the goods.

Second—This card record should be gone over carefully about once a week, and swells and leakers charged back before the expiration of the guarantee date.

Every sale ticket or contract of sale for canned foods should definitely state the term of guarantee against swells—signed by the seller, or broker, or agent, or both; and when a bill is approved or "O. K.'d" for payment, the sale ticket should be attached to it as a part of the record of the transaction, and so should the freight bill.

A few cases, five or ten in each lot of canned foods, should be examined for condition immediately on receipt. If any important percentage of defective cans is found, a percentage, not less than five per cent, should then be examined.

If more than two or three per cent of unmerchantable goods is found in the second examination, the goods should be held subject to shipper's orders and the seller required to pay for the examination of the entire lot, so that it may be put in merchantable condition.

Any percentage of swells or leaks or bad rusties over three per cent leads to the inference that he goods have been insufficiently or incompetently processed and are therefore unsafe to handle, as a lot of goods of that character will continue to develop leaks and swells indefinitely and cause endless disagreement with your customers and much loss. Such goods should be promptly rejected.

A careful wholesaler will not turn out goods containing any important proportion of swells, even though they are guaranteed so that the retailer is protected when he returns them.

It is the shipper's duty to forward canned foods in merchantable condition; and neither jobbers nor retailers want to be loaded up with a lot of swells, leaks or rusties.

It is recognized as one of the vicissitudes of the business that tin plate is often imperfect and that a certain amount of rough handling breaks the tin coating or the solder, so that a certain proportion of leakers will be found in all canned foods. Most can makers make a small percentage allowance to packers for imperfect cans. Therefore, if only a small percentage of swells or leakers or bad rusties are found, and the guarantee runs six months (or until July 1st), it is customary, in order to avoid the expense of examining the goods (which amounts to from three to five cents per case), to send the goods out and redeem the unmerchantable portion when returned by the retailers.

A place to keep, classify and handle unmerchantable canned foods should be prepared on the top floor. Being so located, all odors are prevented from permeating the house. The basement is the poorest place in the store to keep swells, as the cans rust and give packers the excuse that the goods were badly stored and an opportunity to refuse to redeem them.

A fine arrangement for keeping and classifying such goods is to put them along the wall in the corner of the top floor, piling up tiers of empty boxes on their sides, open top outward, and putting each packer's goods together in the same box or shelf. Large boxes should be used if there is plenty of space, like Baker's Cocoa or French Mushroom cases, or No. 10 canned foods cases. The No. 3 canned foods cases can be used for small lots or miscellaneous cans.

Boxes are much better than shelving, as they can be removed or changed when they become unsanitary or soiled, and can be replaced with others without much cost. The repository, which is called the "swell rack" or "the morgue," must be kept clean.

A count of the stock in the swell rack should be taken on the first of each month by the man in charge; the goods promptly charged up, and the bill mailed with a form letter, asking a remittance and instructions as to the disposition of the unmerchantable goods.

It is customary, as a courtesy, to protect the packer by separating the sound goods with the soiled labels from the swells and leakers, and when the packer furnishes labels, to relabel such goods at the packer's expense and dispose of them.

However, there is a class of trade in nearly every town or city which will buy sound goods with soiled labels at a small concession under the regular price.

Bad rusties are generally classed with swells if they are so rusted that they cannot be sold, or scoured bright.

Frozen canned foods should be stored in a dry, cool place until they thaw out. Freezing sometimes causes them to puff out like swells, but it is from the expansion of the contents from freezing. The puffing will subside in a few days after the goods are put in a warehouse, and the quality of the goods is seldom injured by freezing. If stored in a warm place, such goods will "sweat" and rust.

If all packers would lacquer their cans, as do salmon packers and a few others, there would be but little trouble with rusty cans,—only about one cent per dozen would be added to the cost and many times that amount would be saved by the protection from rust.

Rusty canned foods are caused by the empty cans being stored in sheds poorly protected from wet or snow, or by the filled cans being permitted to freeze and then stored in a warm place, thereby causing the moisture in the atmosphere to condense on the cold surface of the cans, causing them to rust. The only remedy for the trouble is to lacquer the cans. Aluminum lacquer is the best for this purpose, as it conceals the rust better than dark lacquer.

It is very important not to let swells, etc., accumulate. The swell rack or morgue should be charged up once a month regularly, as previously suggested. If allowed to accumulate several months, a large proportion of the goods will be lost through the expiration of the guarantee, and the filth and disagreeable character of the resurrection will increase tenfold.

Some packers will want their swelled goods shipped back; some will want them dumped and destroyed; some will want the labels stripped and returned, and some will want their local brokers to examine the goods before ordering them destroyed. In some cities the local health department condemns and destroys the swells, issuing certificates upon which the jobber makes claim against the manufacturer.

Do not sell swelled canned foods under any consideration whatever to peddlers, to junk dealers, or to cheap consumers. It is dangerous to do so. The State and city health departments are likely to prosecute the venders; and they, in turn, will throw the responsibility upon you. Should any sickness or death ensue, you could be mulcted for heavy damages.

Beyond all such considerations, however, there should exist in the dealer such pride in his position as a purveyor to the public appetite as would cause him conscientiously to protect people from unwholesome food—and swells are certainly unwholesome.

All that I have so far said on this subject applies to canned foods under packers' labels. If you handle large quantities of canned foods under your private or house labels, it will be absolutely essential for you to have a perforating machine with which you can perforate your labels (before having them put on canned foods) with a cypher perforation which will mark the labels with the packer's or seller's number, and with the year and month bought. In that way a record can be kept and swells, etc., billed and collected for just as if they bore the packer's label.

CHAPTER XXIV.

HOW TO REGULATE STOCK AND PURCHASES.

A great artist, famous for his success in blending his colors, was asked how he mixed his paints. His reply was "with brains." That prescription must be largely followed in regulating stock and purchases.

Carelessness, neglect, haste, speculation, lack of system, and the failure to keep proper records of incoming and outgoing goods, will lead to accumulation of dead stock, depreciation and loss.

I am writing about canned foods; but my remarks under this heading will apply to stock and purchase regulation in nearly every department of a wholesale grocery house.

A stock of canned foods should be regularly taken at least once a week, either by a competent stock clerk going through the house or through a system which some houses employ of having each floorman take stock of his floor at regular periods on loose sheets or forms. The count from these sheets should be entered on a stock book and the buyer should have this book ever present on his desk.

A buyer should never give an order without knowing exactly the quantity on hand and whether there are not articles of similar grade and value which can be acceptably sold instead, and which are moving slowly. The quick turn over in canned foods is where the profit is made, and it must be remembered that all canned foods are depreciable and should not be kept over from one year to another.

Brokers and packers will claim that canned foods, when well processed, will keep many years. The statement is misleading, otherwise packers would give several years' guarantee against swells and leaks; but it is hard to get them to give over twelve months—and most of them refuse to guarantee beyond six months.

When your stock is once taken and entered, in the book mentioned at the close of this chapter, you have begun a record which will show exactly the number of cases in stock, how many have gone out since the previous week's stock taking, how many have gone in, how many cases you have sold for several weeks or months previously, and the condition of the goods.

If you so desire, the original cost can be entered in the margin in a private cost mark, known only by you, thereby giving you a compact record of practical information at a glance that no other form will give so well. The books are exceedingly simple, durable and cheap. They can be used in all other departments as well as in the department of canned foods. It is a small, compact book and convenient to handle.

Stocks must be taken at fixed dates, weekly, semi-monthly or oftener, and the intervals must be absolute, otherwise the record will be of little value. In buying, however, always, after looking at the stock book, send a clerk or telephone the floorman to verify the count on the article being considered. You thereby avoid duplicating purchases—which is a grievous source of over-stocking.

Don't speculate. Buy goods with a view to turning them over at once in the current course of business. Don't buy canned foods to hold for a rise. They generally won't rise. Buy because the articles are of good value and because you believe they can be quickly sold.

Buy goods that are not quick movers in the smallest quantities you can, to get the lowest price, keeping in that way a well assorted stock with a small investment of capital. Don't get too buoyant, or overconfident, or ashamed to give out small orders for slow-moving goods. Frequent ordering is the way to have clean, bright, fresh stock, and small storage and interest expense. It is also the way to make money for the department.

A buyer should turn his average canned foods stock over seven or eight times a year unless he runs heavily to house labels, necessitating the stocking of a large line and an extended variety of goods under private labels. In that case he will have to be content with turning over his stock four or five times a year.

Buy quickly and boldly when quick moving staple canned foods are offered below their value, but always consider the quality carefully. If you are positive of the merit and of the cheapness of an article, don't hesitate, don't offer a lower price; buy it and buy the

line if you can; don't divide a snap with your competitors; but be sure that your stock will stand the quantity and that your distributive outlet is adequate to it.

Confer with your wisest and ablest salesmen, when you can, about important purchases and get them interested in the goods "to arrive."

Beware of poor qualities in canned foods and keep a sharp lookout for goods that run irregularly. A reputation for furnishing reliable qualities, even in job lots or snaps, will make your business grow by leaps and bounds; but if your cheap standard tomatoes turn out to be poor seconds, or your cheap standard peas will bounce a foot off the floor when dropped or if the cans are full of "yellow boys," or if your big bargain in canned corn is full of flat sours, or if your good trade in No. 1 tall Red Alaska Salmon turns out to be afflicted with stinkers or do-overs, all your labor will be in vain. The goods will be returned, the customers will blast you, the salesmen will curse you, and your department will lose money and prestige.

Remember, always remember, that canned foods are to be eaten and that they are largely sold on confidence. Consumers and retailers cannot use X-rays on the cans or see the quality without destroying the returnable value of the goods; and, no matter how cheaply the goods are sold by you, they must have a good, edible, wholesome and economical value inside the can.

Examine goods carefully and critically when they are received and before you pay for them. Do not be content with the examination of one case. Cut samples out of six, twelve or more cases, depending upon the size of the lot. Have a beam balance scale on your cutting table and weigh canned foods, gross and net weight; and if there is much irregularity of weight, open the cans and learn why. Don't be afraid to cut cans; it pays to be particular and to compare qualities.

Examine purchases carefully, as they come in, for swells, leaks and bad rusties. If they are in bad condition, make the seller pay for the labor of examining them and putting them in good condition. Don't turn out goods having any important proportion of leaks, swells or rusties in the cases. It will hurt your business. Retailers hold you, not the packers, responsible for such matters.

Don't buy goods to job. The trade of your competitors or associate wholesalers is of no value. It is absolutely unsafe to buy canned foods with a view to jobbing them. You will have to undersell everyone else in order to sell your competitor; he will not give you a preference at equal prices, and he will buy goods from you only in a reluctant and limited way. However, if your competitor is overstocked, or willing to sell an article as cheaply as you can buy it direct, and you need the goods, give him the preference. You thereby unload him and put him upon the market again. If you bring

other goods in to compete with him, you still leave him overstocked and anxious to sell at your cost and to keep you out of a profit.

See that your packing room is kept free from broken cases of sold out goods. Establish the rule of turning out broken cases on the last orders for the goods where possible. Take a customer to the packing room now and then, and make a clean up. Prices need not be cut to do so.

Watch your stock book; and when single cases appear that are not in regular quotations, make a list of them and have some salesman close them out. Walk through your stock occasionally and examine the condition of goods and cases as to freshness of appearance. If you find a line dead, get out a case of samples and send to some of your "quick movers" among the salesmen, with special instructions. Check up your stock book at least once a month with your price or sales book to see if your stock is all quoted.

I have no interest whatever in the stock book I recommend. It is for sale by S. W. Roth, editor of "The Wholesale Grocer," 186 N. La Salle Street, Chicago, from whom I bought those I used. He charges $1.00 for them singly, but makes a lower price by the dozen.

The printed directions do not tell how to keep account of stock coming in between stock-taking intervals. This can be done when checking bills for payment, after goods have arrived, by writing the quantity received with a red pencil just above the regular stock figures. This will show when the additions to stock were made. This is not essential, but it is a convenient part of the record. The stock book with the short or flat leaf will give space for about 35 stock-takings; and by using the double facing page, it will give space for 52 stock-takings. A symbol (X) can be used to signify bad order (to be marked after a lot of goods that needs overhauling).

Directions for Using the Stock Book.

Take your present stock book and copy from it your present stock with lead pencil, and in classified and alphabetical order. Put the name of the article on the left in the wide space, put the classification heading at the top of the page, write the size, grade, number of dozen or pounds or any other information necessary on the line beneath the name of the article in the wide space to the left (unless you can write small enough to get it all on one line.) Then date the top of the first ruled column and insert the number of packages opposite the line containing the name of the article. If you take stock once a week, date the top of the next column. You can take stock as often or as seldom as you choose. Use the short or flap page by turning backward when the columns on the first side of it are filled. This gives you a complete record of stock and movement of goods.

Here is a sample of entries:

Canned Vegetables.

Beans, Baked, 1913.	1-2	1-9	1-16	1-23
Van Camp's T. S., No. 3, 2 dozen.....	50	41	32	29
Van Camp's T. S., No. 2, 2 dozen.....	100	82	71	61
Van Camp's T. S., No. , 4 dozen.....	25	20	16	11
Van Camp's Plain, No. 3, 2 dozen.....	25	14	9	3
Van Camp's Plain, No. 2, 2 dozen.....	50	41	32	19
Van Camp's Plain, No. 1, 2 dozen.....	25	20	17	14
Snider's T. S., No. 3, 2 dozen.....	50	22	12	55
Snider's Plain, No. 3, 2 dozen.....	25	20	13	9
Snider's T. S., No. 2, 3 dozen.....	100	89	63	49
Snider's Plain, No. 2, 3 dozen.....	50	41	33	18
Snider's T. S., No. 1, 4 dozen.....	40	29	18	35
Snider's Plain, No. 1, 4 dozen.....	60	41	32	23
Snider's T. S., No. 10, ½ dozen.....	15	11	9	7

CHAPTER XXV.

CANNED ASPARAGUS.

Asparagus is a marine plant growing and thriving best near salt water. It is canned in a limited way on Long Island and at Oyster Bay in the East, but the soil is not well adapted to its growth. It is grown and canned to fine advantage and of fine quality in Utah, near the Great Salt Lake. When grown and canned in the interior, away from salt water, it is usually green, tough and unpalatable. It is largely cultivated in Europe, and the vegetable is reputed to be a fine diuretic and is frequently prescribed by physicians for urinary complaints.

It is, however, grown to greatest perfection in California, and its production and canning in that State has become a very important industry.

California asparagus is grown almost entirely on islands in the deltas at the mouths of the Sacramento and San Joaquin Rivers, below the cities of Sacramento and Stockton. That district is practically at sea level,—in fact, the tides from the Pacific Ocean are felt throughout the entire delta region.

That entire district is of a swampy character as is evident by the heavy growth of tule grass. This tule grass is to a very large extent responsible for these islands, each year's growth forming a kind of peat or tule island.

These lands were originally subject to overflow at very high water, necessitating the building of levees. After the island is thor-

oughly protected by levees, the water remaining, or that which seeps in, is pumped over the levee back into the river.

The soil of these islands is extremely rich and productive. It is a very light soil and will burn when dry if ignited. It is peculiarly adapted for the cultivation of asparagus.

Asparagus is started from seed. The seed is taken from the plants the latter part of September and planted the following March about two inches under ground, in rows about 20 inches apart. These rows must be well cultivated during the summer following the planting.

The latter part of November of that year, the roots formed are dug up and left out of the ground about a month. In the meantime the ground is thoroughly plowed and harrowed and struck off into rows about nine feet apart, with furrows about one foot deep between the rows. Then these same roots are planted deep and left to grow, about 18 inches apart, in rows about 12 inches deep, being well cultivated all summer and not cut over for market purposes. The tops of the plants are permitted to grow and are cut off in January. The ground is then ridged up and taken care of until spring, when the first cutting from the bed can be made.

This first cutting does not amount to very much and should be of short duration so that the roots may have plenty of time to strengthen themselves before next season.

The second year's cutting will increase quite a little over the first; but again the season of cutting should be short, so as to insure the roots' gathering plenty of strength and thus preparing themselves for heavier cutting the third year. In other words, the bed does not yield very heavily until the third cutting season, which is five years from the time of the first work toward planting is done.

The quality of asparagus is regulated to a very large extent by the amount of care given the beds during the first three years of their existence. It involves a very heavy expenditure, and an endless amount of patience and painstaking work.

The floods that do so much damage to this American industry are the direct result of warm rains, coupled with a very heavy snowfall in the Sierra Nevada Mountains. It is not an unusual thing for there to be from 100 to 150 inches of snow on the level at points on the highest range of the Sierra Nevadas, where the Government has its observation station.

The slightest break in the levee will generally result in the flooding of the island affected. If the levee is promptly repaired and the water pumped out, the damage to the beds may be small. In many instances, however, it has not been possible to accomplish this, with the result that the beds were entirely ruined, causing a tremendous loss.

Asparagus is cut just as soon as it breaks through the ground. Long chisels are used in cutting it below the surface. The stalk is at least 7½ inches long when cut.

Good asparagus is no sooner cut than it is delivered to the cannery, where it is assorted into the different grades and cut according to the cans to be filled. It is then plunged into cold water and taken to the sorting tables, where it is sorted over and over again and put into cans.

As soon as the cans are filled, they are passed to the brine table and filled with a carefully prepared salt brine of about 12%. The cans are then capped and taken to the exhaust tub, where they are left in boiling water for five minutes, a vent hole having been left in the can. When they come from this exhaust tub, the hole in the cap is soldered up.

The cans are next taken to the retort, where they cook for from 20 to 25 minutes at a temperature of 232 degrees (in dry steam). Just as they come from the retort they are plunged into cold water. When cool, the cans are taken to the warehouse, where they should remain about three weeks before being shipped.

Every detail connected with the handling of asparagus is the very personification of cleanliness; in fact, to visit a cannery when it is in active operation is to satisfy one that nothing could be more wholesome, more sanitary or more hygienic in every respect than asparagus when handled in this way.

Some packers are not so favorably situated; in fact, some of them have their cannery located in San Francisco, depending upon the city market for their supply.

Asparagus for the city markets and for canneries located away from the beds is cut during the day and loaded on steamers that pass down the river in the evening, reaching its destination sometime in the morning and not reaching the canners before noon. In other words, the asparagus would be at least twenty-four hours out of the ground before it is put into cans. When packed at the beds it is in the cans within two hours from the time it is gathered, hence the great difference in the quality of the different packs.

When asparagus beds are cut over too long, the roots do not have an opportunity to recuperate before the new crop, with the result that the size of the asparagus gets smaller every year, and tough.

Asparagus is much better when canned crisp, or quickly after being cut. The stalks are assorted into green or white and into five sizes. Defective or crooked stalks are cut into soup stock. The five sizes are designated as giant (about 13 stalks to a No. 2½ square can), mammoth (20-22 stalks), large (30-33 stalks), medium (38 stalks), and small (45-50 stalks).

Asparagus tips are packed in No. 1 square cans. They are cut from small stem asparagus and graded as to the number of tips in a can.

Peeled asparagus is made from the larger stalks from which the tough surface is cut or scraped.

The asparagus beds are mulched or covered with straw or asparagus tops. This has the effect of bleaching the asparagus, keeping the tips from the sun.

The consuming public is coming to understand now, however, that the green asparagus is even of better or sweeter flavor than the pure white.

There are numerous varieties of asparagus—all regarded as good except a certain kind that is found with purple colored tops when canned. This is not considered a good flavored kind.

CHAPTER XXVI.

CANNED PEACHES.

The peach is a deciduous annual fruit. That is to say, it blooms and bears fruit only once in twelve months. It is reputed to have originated in Persia and Northern India, but is now cultivated throughout the world in the lower temperate or higher tropical latitudes.

The nectarine is a variety of peach having smooth skin while the other varieties of peaches have downy or velvety skin. Peaches are extensively grown in the United States, especially in Delaware, Maryland, New Jersey, Georgia, Arkansas, Texas, California and to a greater or less extent in nearly every State in the Union. Being a semi-tropical fruit, however, it does not thrive in this country in localities north of the 45th parallel—and, in fact, is rather uncertain as to yield in localities north of the 42nd parallel.

There are three well recognized varieties of the fruit, viz.; The Free Stone, known as Yellow Free or Yellow Crawford, which is a soft, rich and luscious fruit; Lemon Cling or Orange Cling, a fine, firm yellow fruit which adheres to the stone or pit and must be cut off, and the White Heath or White Cling, a very fine flavored peach, the meat of which is white. These are the three varieties which are generally cultivated and best known; but an extensive and almost endless number of varieties has been produced by orchardists, many of them of fine fibre and delicious flavor, known or called usually by the name of their original producers,—such as The Phillips Cling, The Levi Cling, The Solway, Muir, The Gold Drop and the Elberta, but not all of these are suitable for canning purposes.

The peach is the most popular and the most useful of all fruits cultivated in the United States for preserving or canning purposes. It is also very popular for evaporating or drying. Peaches are usually peeled, pitted and halved, then put into the cans and processed. The degree of syrup put upon the fruit regulates the value to an important extent. It ranges from ten degrees, which is the required degree for standard fruit on the Baltimore Canned Foods Exchange, to 40 degrees.

The degree of syrup so expressed does not convey to the unitiated an adequate idea as to how much sugar is used, which is shown as follows:

In 10 degrees syrup, 2½ pounds of sugar is used to the gallon of water.

In 15 degrees syrup, 3½ pounds of sugar is used to the gallon of water.

In 20 degrees syrup, 4½ pounds of sugar is used to the gallon of water.

In 30 degrees syrup, 6½ pounds of sugar is used to the gallon of water.

In 40 degrees syrup, 8 pounds of sugar is used to the gallon of water.

When too heavily processed canned peaches turn pink or red in the can. This does not damage them as to flavor or wholesomeness, but renders them unsightly. Peaches preserved, or cooked in open kettles always turn red. In California canners have established the following grades of canned fruits: Double Extras, 40 degrees syrup; Extras, 30 degrees; Extra Standards, 25 degrees syrup; Standards, 15 degrees syrup; Seconds, about 5 degrees syrup; Water Grade, no syrup and peeled and unpeeled Pie Fruit in water.

In Baltimore the grades are: Extras, 20 degrees syrup and upward; Standards, 10 degrees syrup; Seconds, without syrup and unpeeled pie fruit.

The degree of syrup used on different kinds of fruit is not uniform, however. Pears and cherries require less syrup and plums more than the average Packers aim to make the goods palatable and to put enough syrup in their table fruit to please the taste and not so much as to destroy freshness and naturalness of flavor. California peaches are packed in No. 10, No. 3, No. 2 and No. 1 size cans.

Fine canned peaches are packed in Michigan, New York, Georgia, Texas and Arkansas, usually in No. 2½, No. 3 and No. 10 cans of the several grades and qualities. Sliced peaches are also canned and are quite popular and salable. Some prefer the flavor of Eastern peaches to the peaches of the Pacific Coast because of the degree of acidity found in the latter.

There are three methods of peeling peaches, hand peeling, machine peeling and brush peeling. Hand peeling is done by hand with sharp knives. Machine peeling is done with several kinds of appliances and can be recognized by the regularity of the width of the peeling removed. It is usually not perfect unless completed by hand. Brush peeling is done by dipping the fruit in scalding water and then running it over and under a line of stiff brushes. These remove the peeling. Peaches are also peeled by steaming until the skin loosens or by passing the fruit through a weak solution of lye. It is claimed by some packers that the flavor of the fruit is best preserved by hand peeling; but this claim is regarded by other packers as more sentimental than real.

Bakers use peeled pie peaches in No. 10 or gallon cans, and prefer the yellow free to the cling varieties, as the free peach packs closely in the can and will make more pies to the can than the firm cling fruit. Preservers, on the other hand, prefer the lemon cling peeled pie fruit, as it is firmer and retains its shape. Unpeeled pie fruit in No. 10 and No. 3 cans is used to some extent but is poor stuff, the rejected or fallen fruit being largely used in canning the grade.

Salesmen should always urge their customers to buy as high grades of canned peaches as possible. It is better to have a complaint seldom give satisfaction and make no friends for retailer or wholesaler of the price than of the quality. Peaches in water, or without syrup, unless when bought and used for pie fruit.

CHAPTER XXVII.

ESTABLISHED SIZES OF CANS.

Salesmen should understand thoroughly and should inform their customers that there is no such thing as selling canned foods by weights (with one or two exceptions, which we give below).

The sizes of cans were established originally in this country by the Baltimore Canned Foods Exchange many years ago. Cans are designated by number, not by pounds as follows:

No. 1 cans, 2¾ inches in diameter, 4 inches in height.
No. 2 cans, 3 7-16 inches in diameter, 4 9-16 inches in height.
No. 3 cans, 4 3-16 inches in diameter, 4⅞ inches in height.
No. 10 cans, 6¼ inches in diameter, 7 inches in height.

California has established a standard size for cans known as No. 2½ size. They must measure 4 inches in diameter and 4¾ inches in height and California packers designate the No. 10 cans as No. 8 cans.

Salmon is packed full weight, or 16 oz. net, to the No. 1 can, tall or flat; and 8 oz. net to the No. ½ cans. Lobster is canned the same

way. Canned meats are also packed full weight. These are the exceptions to the rule.

Syrup is also heavier than water, and goods in heavy syrup weigh more than those in light syrup. The average weight of a filled No. 10 can is from 6¾ to 7½ pounds gross (can and contents). The average weight of a No. 3 can is from 37½ to 40 ounces gross. Of a No. 2½ can the average gross weight is from 33½ to 35 ounces. A No. 1 salmon or lobster can should weigh from 18½ to 20 ounces and cut out 16 ounces of meat.

Oysters and crabs are packed in the Baltimore size cans. They are not full weight 16 ounce goods, but are sold by number or size of can. Clams are packed usually in the larger size No. 1 cans, but are not full weight.

Some States require that the net weight of the contents of cans be printed on the labels. In vegetables or fruits this can only be estimated, as there must be a certain amount of water in the cans to act as a conductor of heat through the contents so that they may be properly and sufficiently sterilized. In addition, some substances have a denser fibre than others, and weigh heavier.

Bulletin No. 10 of the National Canners' Association, dated February 13, 1913, in part, reads as follows:

"**Standardization of Can Sizes.**—At a recent meeting in Chicago, Messrs. George W. Cobb, Thomas G. Cranwell and W. R. Olney were appointed a committee on the above subject. After a careful study of the subject those gentlemen made a report stating that they had agreed upon the following sizes, that is to say:

Hole and Cap Cans.	Diam.	Height.
No. 1 size	2 11-16	4
No. 2	3⅜	4 9-16
No. 2½	4	4¾
No. 3 4⅞ inches	4 3-16	4⅞
No. 3 5 inches	4¼	5 inches
No. 3 5½ inches	4¼	5½ inches
No. 10	6¼	6¾
Sanitary Cans.		
No. 1 size	2 11-16	4
No. 2	3 7-16	4 9-16
No. 2½	4 1-16	4¾
No. 3 4⅞ inches	4¼	4⅞
No. 3 5 inches	4¼	5 inches
No. 3 5½ inches	4¼	5½ inches
No. 10	6 3-16	7

It will be noted that the standard sizes recommended represent no changes whatever in most cases, and such changes as have been made are minor. There are no changes whatever as regards diameters.

It was found that while there are some slight variations in cans made by different manufacturers, still these were insignificant and would make no appreciable difference in capacities. Nevertheless, it is thought best that any variations, however slight, should be done away with and uniform standards adopted by all.

CHAPTER XXVIII.

CANNED PINEAPPLE.

The pineapple is a tropical fruit which originated in tropical America, but is now extensively cultivated throughout the tropical and semi-tropical world. It is called "Pineapple" because the shape of the fruit and its external appearance is somewhat like that of a cone from a pine tree.

Pineapples grow on a low plant with serrated, sharp pointed leaves, each plant bearing only one pineapple. They are propagated entirely by crowns or suckers, as perfect seeds are hard to obtain. It is probably next to peaches in importance as a fruit for canning purposes and the canned article is growing in popularity and increasing heavily in annual consumption. It is a fruit with the steadiest value of any, as the crop is affected only by drought and is now of such extended cultivation that sufficient for canning purposes can nearly always be obtained.

Pineapple retains its flavor perfectly when properly canned, and is a most delicious and wholesome fruit. We, for many years, relied upon the Bermudas and West Indies for pineapples; but the fruit is now cultivated, in a small way, in Florida, Porto Rico, The Isle of Pines and Central America, and extensively in Hawaii, the Malay Peninsula and elsewhere in the tropics.

The pineapple pack for the season of 1907 and 1908 was as follows:

Packed at Singapore, Malay Peninsula	794,100	cases
Packed in Hawaii	247,000	cases
Packed in Baltimore, Md	154,000	cases
Packed in Bahama Islands	68,000	cases
Packed in Florida	5,700	cases
Packed in Cuba	1,200	cases
Packed in Trinidad	900	cases
Total	1,299,900	

The United States consumed about one-third of the pack of Singapore, and nearly the entire pack of Hawaii, Baltimore, the Bahamas, Florida and Porto Rico in that season. Since that time the output of Hawaii has enormously increased—being in 1912 about

750,000 cases, and in 1913, about 1,000,000 cases. Singapore pineapples have not been imported to any extent since 1910, as a tariff decision as to syrup practically precluded its use in the United States.

A great advantage enjoyed by the pineapple packers located in the Bahamas, in Hawaii, in Singapore and in some other localities where the pineapple is grown, is that it can be packed there at the proper and perfect stage of ripeness, or as has been said, "with the sunshine in the can."

When packed in localities far distant from the place where grown, pineapples must be gathered before they are ripe and allowed to ripen in transit, as they would not stand shipping if gathered when fully ripe.

This artifically ripened fruit is, therefore, white, fibrous and tough, and not so well flavored as the pineapple which is packed where grown. The styles of packing are various and are as follows: Whole, Sliced, Grated, Cubes, Chunks, Smooth, Spiral Sliced, Whole Sliced Cored, Half Sliced Cored and not Cored, Shredded, Crushed and Pie Grated.

Singapore Pineapple is packed in tall cans containing a whole pineapple, peeled, in syrup, but not cored; in cans containing 5 pounds net of chunks in about 14 degrees of syrup; in tall cans containing 1¾ pounds of pineapple in entire smooth slices cored, or in entire cored spiral-edged slices; in flat cans containing 1½ pounds net in chunks which are about one inch square on the ends, extending in length the full depth of the can; in flat cans containing about 1½ pounds of about one inch cubes; in cans designated as No. 1, which contain about ⅞ of a pound in chunks, and finally in cans containing sliced whole and cored pineapples.

For some time the Government so construed the Dingley Tariff that Singapore pineapple could be imported in light syrup only. This construction was modified in 1910, and importations after that were much improved in quality, being packed with heavier syrup. This grade of pineapple is produced very cheaply because of the cheap labor used in its cultivation and preparation. It, however, is inferior in flavor to either Hawaiian or Bahaman or the best Baltimore packed pineapple, as insufficient care is used in the selection and handling of the fruit.

It sells because of its cheapness, but it is not a good repeater. Buyers should handle it cautiously and in small lots. The Payne Tariff increases the duty on this article and will increase the price about ten or fifteen per cent.

Look out for swells and leakers in Singapore pineapple. It should be thoroughly examined at once on arrival, as importers give only a 30-day guarantee against swells.

Hawaiian Pineapple is packed in cans designated by size or number like all canned fruits packed in the United States, Hawaii now being a part of this country. Pineapple packed in Hawaii is of a fine, luscious ripeness and most delicious flavor.

The sliced is packed in No. 2 and No. 2½ cans, and each can contains from seven to nine whole slices, peeled and cored, in rich syrup. This description applies to the extra or fancy goods. The standard grade is not quite perfect as to the slices, some of them not being entire, and the syrup is a little lighter; but it is otherwise as good as the extra grade.

The crushed and grated styles of Hawaiian pineapple in No. 2 and No. 10 cans are in great demand by confectioners and soda-water dispensers.

The pineapple packing industry is comparatively new in Hawaii, but as the product comes in free of duty and is of such delicious tenderness and flavor, the demand, so far, has exceeded the supply. An extensive advertising campaign instituted by the packers of this fine article, in which its merits were described in many of the publications of highest popularity and circulation in this country, created a general and heavy demand for it.

Very little canned pineapple from Cuba, Trinidad, Florida or Porto Rico comes on the Western market, our grades being confined to Hawaii, Singapore, Baltimore and Bahama packing.

Grated Pineapple is of several grades, and is packed in various sized cans. Extra is packed from clear fruit, free from eyes and cores, and in heavy syrup.

Standard is packed in fair syrup, from fruit clear of eyes, but the cores are crushed with the fruit.

Pie grated is made from the second peeling of the fruit and has considerable of the eye or inner hull of the pineapple in it. It is packed in water.

Shredded and crushed pineapple are merely certain styles of preparation and are more especially for confectioners' use.

Bar cut pineapple is used in mixed drinks and is a half slice, not cored, in syrup.

Cocktail pineapple is in heavy syrup, is coreless and eyeless, and is forked up into small pieces to be used in mixed drinks.

Selling Points.—Pineapple in cans is of a most grateful flavor and is liked by people of most all nationalities. The canned article is much superior to the green fruit imported and sold in fruit stores. The fruit is delicate and decays quickly. It is, therefore, imported partly green and is fibrous and tough and much inferior to canned pineapple.

This fruit retains its naturalness of flavor when canned more perfectly than any other. It is usually, when canned, quality con-

sidered, cheaper than any other fruit and is a wholesome and economical product, keeping so for many years. It is an article that brings the retail grocer a nice profit and that will, for any extra attention he devotes to it, reward him by attracting and holding trade.

CHAPTER XXIX.

CANNED PEARS.

The pear is a fruit belonging to the same botanical genus as the apple. It is of ancient origin, going back into great antiquity. The pear tree is hardy, even more so than the apple tree. It is a fruit of the temperate climate, but thrives best in the middle and higher latitudes. Throughout the world there exists an almost numberless variety of pears, but those best known in the United States and used for canning purposes are the Bartlett and the Keifer varieties.

The Bartlett pear is a soft and delicious fruit. It is of such sweetness naturally that only a light syrup is desirable. A heavy syrup is not needed and tends to spoil the natural freshness and delicacy of flavor of the fruit. California grows glorious Bartlett pears of large size. Washington and Oregon also produce splendid pears.

Good judges, however, agree that the New York Bartlett pears, though smaller, are of finer fibre and more delicately delicious than the large fruit grown on the Pacific Coast. Improvements are being made, however, in California and Oregon by grafting; and it is predicted that the coast fruit will, ere long, be unexcelled in flavor as well as in size.

Keifer Pears are very hardy and usually quite hard. They ripen so slowly that canners are sometimes compelled to remove them from the trees to protect them from freezing, and to ripen them by packing them in dry straw before putting them in cans. This pear has not the natural sweetness of the Bartlett variety and a liberal use of syrup is essential to make it palatable.

It is very difficult to process canned pears sufficiently to hermetically seal them in cans and at the same time avoid discoloring them, as an excess of heat is sure to turn them pink or red in the can. While this does not injure their flavor or render them unpalatable or unwholesome, it does spoil the appearance of the fruit.

All pears are hand peeled, carefully cored and stemmed and immediately dropped into a light solution of salt water to protect them from contact with the atmosphere and consequent discoloration. They are processed not longer than ten or twelve minutes, or about half the usual time; but that seems sufficient to cause them to keep and yet retain a bright, white color.

Keifers or other hard varieties of pears should be peeled, cut in quarters and the seeds and core removed. Bartlett pears are softer and are usually cut in halves, the stem being sometimes left on one half. The seeds and cores are then removed and the cans processed, being filled with water or a light or heavy syrup as required.

The Selling Points.—Bright, color; freedom from red or pink discoloration from over cooking; nicety of handling shown by careful coring and peeling; syrup not so light as to leave them unpalatable, and not so heavy as to spoil their flavor; cans well filled, and fruit free from specked or imperfect pieces.

CHAPTER XXX.

CANNED LOBSTER.

In the packing of lobsters there are perhaps more difficulties and disappointments than in the packing of any other canned product in tins. It often happens that severe storms destroy lobster traps and fishermen's gear, bringing the entire packing business to a standstill.

The method of catching lobsters is interesting. Traps are placed anywhere from one to seven miles from the shore. These traps are a box-like contrivance about four feet long, two feet wide, and one and one-half feet high. They are made from common laths, in the center of each end being a small, round opening about 4½ inches in diameter. An inclined plane runs to those openings, and the openings are large enough to permit lobsters weighing from one pound to four pounds to crawl through. Once inside the trap, the lobsters cannot get out. The inclined plane is missing and they cannot get up to the opening. It is the choice bit of bait inside the trap which inveigles the lobster to enter. Herring is principally used for bait.

The traps are put in the water on a trawl line, this being a long rope anchored at both ends with a buoy at each anchor, to mark the placing of the trawl. The traps are attached to this trawl line, there being 25 or 30 on each line, placed about 10 feet apart. Each trap has sufficient stone weight inside to sink it to the bottom and hold it there. One fisherman will fish from perhaps 100 to 125 of these traps. The fishermen start at one end of these trawls and haul in one trap at a time until all have been taken care of. The lobsters are removed from a small door in the top of the trap, and then, after fresh bait has been arranged, the trap is again lowered to the bottom. Each trap will catch at a setting anywhere from one to eight lobsters.

The fishermen bring the lobsters directly to the factory where they are picked over carefully and dead lobsters thrown out. Only live lobsters are put through the process of canning.

Three or four hundred pounds are put in boiling tanks. After boiling the proper length of time, the lobsters are taken out and placed on coolers. After cooling, so as to permit handling, the claws and tails are broken off and go through the process of canning. The bodies are thrown aside as waste and are not packed in any form.

That part of the help called "crackers" now take the claws and tails, removing the meat therefrom. The meat is cleaned thoroughly before being placed on the packing table. Here it is placed in the cans, and the cans later go through the process of sealing. The cans, with their contents, are placed in boiling water for a certain length of time, after which they go into retorts for a thorough cooking. After coming from the retort, the cans are cooled and are then ready for labelling and boxing.

Practically all the canning is hand work, it being impossible to satisfactorily employ machinery in handling lobsters.

The inside of lobster cans is coated with oiled parchment paper to protect the meat from contact with the tin. There is so much natural phosphorus and iron in the chemical composition of lobster tissue that it acts upon tin and turns the meat black unless protected from contact.

This discoloration, if slight, is of no detriment and is of no importance. It will not do, however, to keep lobster in tin over one year, as it is very apt to turn black and to become unfit for use. Don't sell your customer a supply to last more than a year.

There is a difference as to lobsters caught on a clear gravely bottom and those caught on muddy bottoms. The latter are much more apt to discolor in the can because, as it is supposed, of the influence of the iron in the mud upon the flesh of the lobster. A grayish tinge to the canned meat is evidence of the lobster being caught near shore on muddy bottoms, and does not essentially discredit the quality.

The meat from the claws is more tender than that from the tail and is held by some to have the sweetest flavor.

The catch has been regulated to such an extent by law, and the supply has decreased so in a few years past, that prices have heavily advanced, and are not likely to be lower soon. This product is popular all through the world, and principally comes from the Northeast Coast of the United States and the East Shores of Canada. Lobsters are not found in tropical waters. A product called lobster from Africa and from Cuba has been put in cans and offered at a low price; but it is exceedingly tough and devoid of flavor and hardly worthy of commercial attention.

Wholesale grocers should get a heavy margin of profit on canned lobster as reclamations and the return of cut cans showing discoloration are frequent and canners do not back up such claims very cheerfully or promptly.

Selling Points.—Canned lobster should be of bright color, the cans carefully lined with oiled paper so as to protect the meat from contract with the can, the labeling should be neat and attractive, as the article is high priced, and the tin should be extra heavy coated.

CHAPTER XXXI.

CANNED APPLES.

In fruits the apple ranks as the most important in the United States and its annual yield has much influence upon the price and consumption of other fruits.

It grows in higher latitude than other fruits, because it blooms late, thereby escaping the late frosts of spring. It is, therefore, a more reliable crop than other fruits.

In its wild state it is known as the Crab Apple, a sour, inedible fruit used only for jelly, cider and preserving, but it has been cultivated and improved until it is a most wholesome, abundant and delicious fruit known throughout the world in almost infinite variety.

It is cultivated in all European countries, in India, China, British North America, the United States, and in fact all over the world. It thrives better in the temperate zone than elsewhere.

In order of importance as written, the States which produce canned apples in the United States are: New York, Michigan, Maine, Ohio, Virginia, Maryland, Missouri, Indiana, and a few other States.

Canners pack apples in No. 2½ and No. 3 cans, and largely in No. 10 cans, very few being packed in No. 2 cans.

Firm, tart apples are the best for canning purposes, therefore the late fall or winter varieties, like Baldwins, Greenings and Spies are the best.

Canned apples are usually packed in water for pie purposes and seldom otherwise except in the form of apple butter, apple sauce or apple jelly.

Apples in cold storage keep well; therefore, when the crop is abundant, the canning of apples is sometimes protracted until after January 1st, the cold storage apples being used.

The "big seller" is the No. 10 size, packed with a half dozen or one dozen cans in a case. Apples should be packed from late fall or winter fruit, and should be hand packed as well as hand picked, sanitary cans preferably being used. They should be nicely peeled and carefully cored and cut into one-quarter or one-eighth pieces. The cans should be filled as full as possible before processing, and the fruit should, after being peeled and trimmed of all bruised spots, be dropped in cold salt water to protect it from discoloration. Processing

too long or too heavily softens the fruit too much and turns it red in the cans; and yet a too light process will permit the contents of the cans to spoil and the cans to swell and burst.

Summer apples are poor for canning purposes and always turn soft and mushy in the can. Maryland, Missouri, Arkansas and Virginia canners usually haven't the varieties which are best for canning. The best varieties are produced in New York, Michigan, Maine, Ohio, and Wisconsin. I have seen some good canned apples, however, from Pennsylvania and Missouri, Indiana and Kentucky.

A can of No. 10 apples, to be well packed, should contain from 3½ to 4 pounds of solid fruit after all water is drained out of the can. The color of the fruit should be bright if it has been carefully handled. Windfalls should not be used for canning as they are nearly always decayed at the core to a greater or less extent. It is impossible to handle apples without leaving an occasional bruised spot, and buyers should not be too critical in that respect; but apples for canning should be hand picked from the trees. Handling in transportation wil essentially bruise them some, however.

CHAPTER XXXII.

CANNED CLAMS.

Canned clams are not of large sale and are used chiefly in soups and in chowders.

The bivalve mollusk used for canning purposes is the salt water product. The fresh water clam or mussel is not used.

The round clam, or Quahog, is packed in a very limited way, and is much higher priced than the long clam. This last is the kind that is almost universally used for canning purposes. Clams should be of a bright color when the can is opened.

If the brine is dark and the clam dark, the goods have been packed too long and are not of good flavor, the phosphorus has dissolved the tin on the inside of the can and discolored the contents.

Clams are packed and sold like oysters, by the net weight of the contents after the can is cut.

For illustration, there are No. 1 cans of clams which will cut out 8 ounces of clams, and No. 2 cans, which will cut out only the same weight.

They are packed of No. 1 size (containing 6 ounces, 8 ounces and 10 ounces), while the No. 2 size is packed to contain 6 ounces, 8 ounces, 10 ounces, 12 ounces or 16 ounces.

So the price varies according to the weight of the contents of the cans, and each shipment should be tested for the weight specified in

the contract. Clams (soft shell) are packed chiefly in Maine and in Massachusetts. Hard shell clams are packed almost solely on Long Island.

CHAPTER XXXIII.

CANNED OYSTERS.

Oysters are extensively canned in the United States, in Great Britain and in France. The Chesapeake Bay for many years was the chief source of supply, and Baltimore became (and is yet) the great center of the oyster industry. Oysters are the most popular of all food shell fish.

The oyster beds of The Chesapeake Bay have been dredged until the larger oysters have all been removed and until stringent legislation had to be enacted to prevent the extermination of the bivalve.

In the South. however, at several points along the coast of the Gulf of Mexico in Florida, Mississippi and Louisiana, as well as in the waters of South Carolina, Georgia and Virginia, oysters have been found or planted and the beds cultivated until the yield has been so abundant and the quality so fine that the industry has almost been transferred to those localities.

There has been more fraud and deception practised in the packing of cove oysters than in the packing of almost any other product. A law was passed once by the Maryland Legislature requiring that the net weight of oyster meat in the cans be stamped in the tin on the cap of the can. This law has become inoperative—very much to the regret of those who believe in honest canned foods.

Reputable packers, however, now try to adhere closely to the following weights of oyster meat:

No. 1 size..... 1½ ounces meat	No. 2 size..... 3 ounces meat
No. 1 size..... 3 ounces meat	No. 2 size..... 6 ounces meat
No. 1 size..... 4 ounces meat	No. 2 size..... 8 ounces meat
No. 1 size..... 5 ounces meat	No. 2 size.....10 ounces meat
No. 1 size..... 6 ounces meat	No. 2 size.....12 ounces meat

It is best to inspect purchases carefully and to see that the weights received are those bought. In order to test weights, cut the can, draw off the liquor, weigh in the original can, then pour the contents into a receptacle and weigh the empty can. This will test the weights and enable the purchaser to compare them with the invoice.

The best weighing apparatus for canned foods, however, is an even balanced scale,—one platform for weights, the other for articles to be weighed,—with tested loose weights running up to ten pounds and having a side graduated beam that will weigh as little as an eighth

of an ounce. Such a scale is sufficient in capacity, convenient, and usually reliable.

A set of pans, white enamel lined, of various sizes for sampling canned foods, is more desirable than dishes. Each pan should be carefully weighed empty and its weight marked on the side with black iron enamel paint. Then it will not be essential to weigh the pans each time.

A tin strainer with a wire mesh bottom, the meshes one-quarter inch in size, is the standard for draining and weighing tomatoes, oysters, apples and nearly all articles except peas.

An effort should be made by all wholesale houses to induce retail grocers to buy and distribute choice qualities of cove oysters and well-filled cans containing an honest quantity of oyster meats. There is no other way to reinstate this formerly popular article in public esteem and to prevent cove oysters from being entirely driven from the market by competition with fresh oysters (which are now shipped and sold nearly everywhere).

Selling and Buying Points.—See that the weight you contracted for is in the cans. Do not reject or condemn or approve by cutting one can. Cut several, and if the weight is fairly uniform and averages up to contract, it is a good delivery.

The oyster meats should be of good size, bright in color, free from green color, and the liquor on the oysters should be only a little cloudy, not white and milky or viscid.

A No. 2 can of Extra Selected or Fancy large oysters, containing about 10 or 12 ounces of oyster meats, is a good article for a jobber to have under private label so he can push the sale of it. A good trade can be built up—especially by a house that has mountain, mining, shipping, or lumber trade—on such an article, and at a handsome profit. The quality will bring repeat orders.

Some packers use what is called "shanghai" or extra tall cans; but no advantage to the consumer is thereby given, in fact, the cost often is greater. The weights are no greater, the extra size of the can being merely deceptive.

Canning of oysters is usually in progress from October 1st to April 1st, and, in most States, is regulated, as to date by law. Oysters were the pioneers of the canning industry in the United States, being about the first articles hermetically sealed in cans.

Oysters are cultivated extensively by being planted in beds in favorable water and localities, and protected until of proper size. They are gathered from deep water by dredging, from shallow water by tonging. The protection of their oyster beds by the laws of Maryland and Virginia, and the policing of the waters were just beginning to restore or renew the famous oyster beds of the Chesapeake Bay when

the 1914 Legislature of Maryland practically killed the law that had done so much good, and Maryland's advance has been checked.

The following requirements as to cut out weights are now nationally in force:

(Government Bulletin No. 19, of date October 11, 1913.)

Contents of Canned Oysters:

For the information of oyster packers, we print the following letter, by permission of the Board of Food and Drugs Inspection of the Department of Agriculture:

Mr. Frank E. Gorrell,

National Canners' Association,

Woodward Bldg., Washington, D. C.

Dear Sir:

An examination of samples from many of the packers of oysters put up during the season of 1912-13 shows that the weights of drained oyster meat "cut out" frequently fall below those agreed upon by the canners at the meeting of October 1, 1912, and accepted by the Board as satisfactory pending further investigation of the subject.

This shortage, which amounts to 10 or 15 per cent. of the weights agreed upon, has been observed in cans of all sizes except the No. 1 tall and No. 2 tall, which are used exclusively for packing select and extra select oysters. Cans are sometimes found which contain more than the agreed weight, but this is exceptional.

It is believed that this shortage in weight is not intentional, but is due rather to the fact that insufficient allowance has been made for loss in weight of oysters through processing; or, in cases where a gain in weight occurs, this gain has not been as great as was expected. By a somewhat closer attention to the question of loss or gain in processing, canners should have no difficulty in avoiding shortage in the packs prepared during the season of 1913-14. This notice is issued to inform the trade that, pending further investigation, the weights agreed upon by the canners at their meeting in Washington in October, 1912, will be regarded by the Board as satisfactory fulfilling the requirements of Food Inspection Decision No. 144. It is expected, however, that the "cut out" weight of all cans shall conform with this agreement, and where a variation occurs it shall be as often above as below the agreed weight.

"The weights which have been agreed upon are given below:

Size of Can..		Weight of drained
Diameter.	Height.	Oysters "cut out."
2 11-16 inches	2 3-4 inches.....	3 ounces
2 11-16 inches	3 6-16 inches.....	4 ounces
2 11-16 inches	4 No. 1.....	5 ounces

3 3-8	inches	3 15-16 inches.....	8 ounces
3 3-8	inches	4 9-16 No. 2.....	10 ounces

(Signed) CARL L. ALSBURG,
Chairman."

It will be recalled that Food Inspection Decision No. 144, referred to in the above letter, states:

> "The can, in canned food products, serves not only as a container, but also as an index of the quantity of food therein. It should be as full of food as is practicable for packing and processing without injuring the quantity or appearance of the contents."

Oyster packers will therefore take notice that in order to comply with the requirements of that decision, their cans should contain the weight of drained oysters as set forth in the foregoing letter, otherwise their product will be liable to seizure.

CHAPTER XXXIV.

CANNED BLACKBERRIES.

This well known berry grows wild throughout the United States and in many other parts of the world. There are several varieties. One of these, sometimes called the dewberry, grows on a running or dwarf vine and has usually much larger fruit than the wild blackberry. Cultivated berries are much superior to wild berries. Wild berries grow to greatest perfection and size in the shade among or under tall trees.

It is a justly popular and luscious berry, quite delicious and exceedingly wholesome. In canning it retains its shape and color fairly well and keeps its flavor.

The Baltimore Exchange standard for blackberries is as follows: "Cans to cut out not less than two-thirds full after draining; fruit to be sound; put up in water."

Canners claim that when the can is filled as full as possible without crushing the fruit, that it will shrink in processing and cut out not over two-thirds full when drained.

It is a fine pie berry, though some object to the numerous seeds which these berries contain.

It also makes a fine, rich-flavored preserve when canned in heavy syrup.

Its largest distribution is in No. 10 cans to the bakery trade for pies, and in No. 2 and No. 3 tins in water for home-made pies.

Quite a quantity of the pack, however, is put up in No. 2 cans in rich heavy syrup. A fine jam or marmalade is also made from this berry. And fine cordial, made from the juice of the blackberry, is prescribed by physicians for use in indigestion.

In droughty seasons blackberries "dry up" or shrivel on the vine. They should not then be canned as they lose flavor and become bitter.

Selling and Buying Points.—It is best to handle this fruit in No. 2 cans in syrup, as color, flavor and value are best retained in this way. The fruit, when for pies, must, of course, be packed in water.

The fruit should be ripe (black) and no red or green berries should appear in the cans. The berries should be soft and the fleshy seed coverings well rounded up and not shriveled or dried up by the sun's heat. No leaves, sticks or grit should be found in the cans. Dried blackberries have been used in the past for canning, but this is no longer done.

CHAPTER XXXV.

CANNED RASPBERRIES.

This berry is very ancient in its derivation and its history is lost in antiquity. It grows wild all through American and European countries; but as the cultivated raspberry is superior to the wild berry it is extensively cultivated.

There are a great many varieties or kinds of raspberries, as the Red, the Black and the Yellow; but the kinds that are best known and that are best for canning purposes are the Black, the Cuthbert Red, and the Columbia Red varieties.

This berry retains its natural flavor better when canned than most any other fruit or berry.

The black raspberry is best known and is most generally grown, holds its color and shape well, and retains its flavor almost perfectly when canned.

It is packed in No. 2 cans in water and syrup, and in No. 10 cans in water only for preservers and for pie use.

The Cuthbert Red Raspberry is a very delicate berry and is easily disintegrated by heavy cooking or processing. It has a very rich, delicious and penetrating flavor and is almost exclusively used by preservers for jams and marmalades, or for preserving in glass. It is easily deprived of its color by heavy processing or by contact with tin. It is therefore almost altogether packed in inside enameled, sanitary cans—which seem to hold the color of the fruit.

The Columbia Raspberry is a larger berry than either the Black or the Cuthbert. It is a red berry, but is a dark red and is not in favor with preservers as it "cooks up" quite dark.

The standard of the Baltimore Canned Foods Exchange for canned raspberries is as follows:

"Cans to cut out not less than two-third full after draining; fruit to be sound. Put up in not less than ten degrees cold, cane sugar syrup."

Selling and Buying Points.—The contents of the cans should be free from leaves, sticks and grit; the berries of uniform color, and free from soft, unsound, green or underripe fruit.

CHAPTER XXXVI.

CANNED HOMINY.

Hominy is prepared from Maize or Indian corn, which grain is, according to the best authorities, indigenous to North America. Some historians have claimed that it originated in India, Turkey, Peru, etc.; but no credible proof has been produced, and it is now held that maize, or corn as it is popularly called in the United States, is a native North American product.

Corn is enormously produced and consumed in this country; but efforts to popularize the use of its products in European and Asiatic countries have, so far, met with poor success.

Hominy is one of the most edible and popular forms into which corn is converted for human food, but canned hominy is a product of recent introduction.

Hominy, as originally made by the early settlers of the United States, was produced from white corn, the hard or flint varieties being preferred. It was soaked in water and afterwards subjected to the action of a weak solution of wood ash lye. This had the effect of removing its outer hull or skin, leaving the white kernel for food. The hominy so made could then be dried, would keep sweet and good for a long time, and made a fine, nutritious and palatable food to be eaten with milk or cream, or butter, or sugar, or syrup, or even with salt alone.

It is an excellent and a very cheap food, and canners during the past fifteen years have been giving it considerable attention.

It is still prepared by some canners by the old-fashioned lye process, but is also decorticated by machinery through a friction process, which takes the skin or outer integment from the grain. It is then thoroughly cooked in steam kettles, put into cans, processed, and put on the market.

For some reason, not well known to canners, hominy is difficult to process properly, as it seems to be predisposed to turn black in the cans; and many thousands of cases have been lost through experiment-

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ing by inexperienced packers. In fact, there seems to be a chemical element in hominy that has an affinity for the coating of tin and underlying iron sheets of a tin can, often causing the article to turn dark in a short while after it is packed.

Some claim that this is caused by the use of the lye solution in the old method, but it is found to an extent even in pearl or decorticated hominy.

Packers of canned foods now, however, believe that they have solved the problem by the use of inside enameled tin cans, the grain thereby being kept from contact with tin. The superior reliability of that style of can for hominy has been proven by practical use.

I, however, have seen several lots of hominy in a few years past which had been packed in tin cans lacquered inside with an inferior lacquer, which were unfit for food, the grain having absorbed the lacquer and absorbed its flavor.

This article when canned properly is a most wholesome and palatable food, and as it can be produced very cheaply, it permits to the wholesale grocer a fair margin of profit.

Buying and Selling Points.—Get a guarantee against turning black if in plain cans, and against absorbing the lacquer and turning black and becoming inedible if in inside enameled cans.

Do not object to sufficient water in the cans to lightly cover the contents. It is essential to the transmission of sterilizing heat throughout the grain, otherwise the contents would not keep. See that the grain is fully stripped of the outside hull and that the black eyes at the germinating end of the grain are removed by the decorticating process.

Canned hominy should be dead white in color, not yellow, and should, therefore, be made of the best white flint corn.

Hominy is packed in No. 2, No. 2½, No. 3 and No. 10 cans, largely in Indiana, Illinois, Ohio and Iowa, and to a less extent in other states. It affords a good opportunity for the use of private or house labels profitably.

CHAPTER XXXVII.

CANNED KRAUT.

Packed usually in No. 3 and No. 10 size cans, this article of food is of ancient use and manufacture, but only in recent years has it been hermetically sealed in cans. The undertaking has proven popular, however, and the production and sale of canned kraut is now a very important branch of the industry.

The kraut which is hermetically sealed in cans is identical as to cure and quality with the kraut which is sold in casks, being cured by the same process in large vats or tanks.

This description is applicable, of course, only to kraut properly cut and cured by the best processes and by people of experience.

Some kraut is merely chopped cabbage, neither properly cut or properly cured, and that kind is sometimes canned.

The standard of quality has, however, been so improved and advanced in a few years past that the kraut maker who merely chops up a lot of cabbage leaves, cores and all, salts it down and puts it on the market, finds that here is no sale for his stuff except for fertilizing.

Long cut or shredded kraut is the only style now used by the best manufacturers. These obtain imported machinery for making it; and many of them have brought over trained kraut makers from Magdeburg, Munich and from other famous kraut producing localities to manage their factories.

Kraut can be packed to best advantage in sanitary cans, and some canneries are even using the enameled inside sanitary cans.

This article is one of the most honestly packed products in the canned food line, and the contents of the can are pressed in solidly and firmly, with but very little water. It was formerly packed with pork or sausage in the can, but seldom so packed now.

Buying and Selling Points.—See that the cans are solidly packed, so much so that when the contents are poured out of the can they will stand alone in a solid mass. The cut of the cabbage should be long or shredded, the color a light rich yellow. Kraut usually keeps reliably in cans, as it undergoes a heavy preliminary cooking before it goes into the cans, and is then heavily processed afterward.

Good, well cured kraut has a rich, lively odor when the can is opened, caused by the fermentation process. If it does not smell it has not been properly cured.

The inconvenience, trouble, annoyance, slop, smell and spoilage in handling kraut in casks is all avoided in selling canned kraut; in addition in this way the dirt, filth and unsanitary and unwholesome conditions under which bulk kraut is retailed are all avoided.

CHAPTER XXXVIII.

CANNED PUMPKIN AND SQUASH.

Canned Pumpkin.—This article is packed usually in No. 3 or in No. 10 cans, and is of fine merit. The pumpkins are cleaned, thoroughly cooked, and then the meat is reduced to pulp by a machine used for that purpose. It is next carefully screened and strained in order to take out all hull or other useless parts, put in cans, and hermetically sealed. A centrifugal machine or cyclone is used by

some canners to separate the soft pulp of the pumpkin from the fibrous parts.

It was formerly the case that pumpkin had an admixture of corn starch to make it appear firm or solid in the can and of a light color; but that article is no longer used for a filler (neither is any other adulterant), as there is scarcely anything which could be used that costs as little as pumpkin.

Pumpkin which is firm, and which can be sliced with a knife when turned out of the can upon a dish, is either compressed by machinery or stiffened with corn starch.

The pumpkin belongs to the gourd family of vegetables, as does the squash, and both have been used as food for men and animals since history began, since both are grown in all parts of the world. They are wholesome and nutritious and deserving of a much wider use than they have so far attained.

Buying and Selling Points.—Pumpkin in cans should be of a deep golden color, somewhat darker than the natural yellow color of the flesh of the pumpkin, as cooking darkens the color slightly. It should be of a moist consistency, but not too moist, just so it can be stirred with a spoon in the can and that it will heap up moderately when poured in a dish. It should be free of black streaks or discoloration and of specks, and should be so pulped that its consistency is smooth and of fine texture and not lumpy or shredded. It should be of natural flavor.

Canned Squash.—Two varieties of squash are used for canning purposes in the United States—the Boston Marrow Squash and the Hubbard Squash. Both kinds have their friends, and some buyers advocate the superiority of each kind. It is packed like pumpkin, in No. 3 and No. 10 cans, and in about the same way. Squash as a vegetable is found throughout the world, and, like pumpkin, belongs to the gourd family. It is generally pulped and put in the can, but it is sometimes cut up into squares and packed in that way in cans to be baked and eaten with butter. There is no way to tell the different kinds of squash apart in the can except by a slight difference in flavor which cannot be described.

Buying and Selling Points are practically the same as those of pumpkin.

CHAPTER XXXIX.

CANNED PORK AND BEANS AND RED KIDNEY BEANS.

Pork and beans were labeled Baked Beans until the National Pure Food Law went into effect. It was then decided that beans cooked by steam in cans could not properly be labeled "Baked," so they now are designated Pork and Beans. When beans are packed

without pork, they are labeled "without pork;" when they are packed with tomato sauce, they are so labeled; and when without tomato sauce, they are merely marked "Plain."

There are many kinds of beans, all of great antiquity. As a food product for men and animals they are well known in most parts of the world.

Canned "Pork and Beans" have been popularized in the United States in about fifteen years past by extensive advertising. There are three or four factories which contend for the trade in that way, and have built up a great sale for their brands.

One manufacturer is reputed to sell more than a million cases per annum. There are hundreds of smaller canneries, and nearly every wholesale grocer in the United States pushes his own private or house brand of "Pork and Beans."

Pork and Beans, so popular in the United States, are made from Michigan or New York white or pea beans, cooked with a piece of pork, and are largely sold in tomato sauce.

They are packed in Nos. 1, 2, 3 or 10 cans, and in about three grades—Standard, Extra Standard and Fancy. The standard grade is made from third grade beans, and some pebbles or small gravel will occasionally be found in the can, as well as some discolored or imperfect beans.

The Extra Standard grade is made from second or "Samico" Michigan white beans, free from gravel or pebbles, but not entirely free from imperfect beans, though the rain damaged or stained beans used in this grade do not show after the beans are cooked. The Fancy Grade is made from choice, hand-picked, white pea beans. The beans are picked over a second time before they are cooked by canners, making the grade as near perfect as possible. The grade of tomato sauce or catsup used upon Extra Standard and Fancy is the same, being pure tomato sauce, made from whole red ripe tomatoes. The sauce on the Standard grade is of a poorer quality usually, frequently made from tomato peelings at canning factories.. This, however, is now being stopped. The Pure Food Inspectors of the National Department of Agriculture are very vigilant in relation to tomato catsup and tomato sauce of late, and buyers should be careful to know that their purchases of Pork and Beans, in tomato sauce especially, are made by responsible and dependable canners who use a tomato sauce which is guaranteed to comply with the bacteriological test required by the United States.

This article is steadily salable and gives to wholesale grocers good profits and permanent patronage when pushed under their own labels.

Buying and Selling Points.—Pork and Beans should show no moisture or water in the can. They are subjected to a preliminary cooking and the moisture is all absorbed by the beans. Each can, unless it is marked "Without Pork," should have a small piece of boiled pork therein. The beans should be tender—each bean in the can should be so. Undercooked or raw beans can be detected by their being hard and tough and of a poor flavor.

Such beans will cause those who sell them a loss of money and customers. The tomato sauce used on Pork and Beans should be made from the whole ripe tomatoes and carefully tested to comply with the National Pure Food Law as to bacteria.

The beans should be of a very light brown color, and the tomato sauce should be well distributed through the beans and not collected at one end of the can in thick pulp.

Our description of the grades in which beans are packed will show buyers what to expect in each grade as to imperfections. This is a cheap and nutritious food, splendidly wholesome, and growing rapidly in public appreciation. The contents of cans being very solid and the beans packed almost dry, the preliminary cooking should be carefully done. Beans are hard to sterilize by processing and the center of the can is hard to reach, as there is no water in the cans and therefore no conducting medium for the heat. The designation "Baked Beans" has been abandoned, as it is usually misleading.

Red Kidney Beans.—These beans are quite popular and salable in cans. They are packed in No. 1, No. 2 or in No. 10 size. There are two kinds, the Red Kidney and the Improved Red Kidney.

The latter is darker and glossier in the can than the first named, but many like the old style or kind best. These beans are packed plain usually, but sometimes with pork and with tomato sauce.

Buying and Selling Points are practically the same as of Pork and Beans.

CHAPTER XL.

CANNED BEETS.

One of the most difficult articles to preserve satisfactorily, and yet one of the most meritorious and desirable of canned foods, is treated of in this chapter.

Canned beets are growing rapidly in common use, despite the difficulty packers experience in having them hold their natural color.

The action of the acid in beets on the tin forms a chemical element which causes the beets to turn yellow and pale, thereby depriving them of that beautiful red color which the fresh beets possess. This chemical change does not sour the beets nor have any very

perceptible effect upon their flavor, but it does render them unmerchantable and unsalable.

Some packers claim to have overcome this trouble by crushing the larger beets and using the red liquor extracted from them instead of water to fill the cans, but their efforts have proven futile.

Sometimes a lot of beets, canned, processed and hermetically sealed at the same time (and grown in the same soil), will prove irregular, some holding their color, others turning yellow or white. This variation does not occur, however, in the same can.

It has been claimed that beets grown on fertilized ground replete with nitrogenous matter will not hold their color when canned.

It has been found recently that inside lacquered or enameled cans will positively preserve the red color. This goes to confirm the theory that the fading is caused by the action of acid on the tin, as the tin is protected in inside enameled cans from the acid, and the beets hold color.

Beets are packed in Nos. 2 and 3 or in No. 10 cans. The smaller beets, after being carefully cooked, peeled and washed, are graded or assorted as to size, and are packed into the cans whole—the smaller sizes being regarded as the most desirable. The larger beets are cut into quarters or smaller pieces, are packed into cans and labeled "Cut Beets," and are then sold at a low price. Beets are usually graded into four sizes by being passed over a table with holes of the various sizes thereon. New York, Maryland, Missouri, Minnesota and Ohio produce nearly all the canned beets used.

Buying and Selling Points.—Only beets packed in inside enameled cans should be used. When packed in other cans the danger of fading is too great. The size in various grades should be uniform and the price graduated accordingly.

Beets should be carefully washed free of all earth and imperfections before canning them, and no roots, leaves or stems should be found in the cans. If a lot of canned beets is faded or has turned light in the can, reject the goods. They cannot be sold and are unmerchantable. Cut beets at low prices are more salable than the seelcted small beets at fancy prices.

A stock of beets should not be carried over from one year to another, as age seems to fade them—especially when packed in the plain inside cans.

CHAPTER XLI.

CANNED SPINACH.

This article has largely increased in use in five years past, attributable to the fact that nearly all packers having been striving to excel others as to the quality of their output. All have been giving splendid values, thereby popularizing the article.

It has for hundreds of years been a well-known "pot herb," but canning of it is of but recent date in this country, though the French have canned it for many years.

The Baltimore Standard of Canned Spinach is: "Cans to cut out reasonably full, gross weight of No. 3 cans, 39 oz."

Baltimore canners excel in this article and their product stands as high in the esteem of the trade as either New York or New Jersey packs, which are usually held at higher prices.

Buying and Selling Points.—Spinach (or Spinage) grows low to the ground, and the rains and winds are apt to load its leaves, which are somewhat rough and fibrous, with sand or grit. This should be washed away from the leaves most thoroughly, and in most factories the leaves pass almost constantly, while in preparation, under jets of water and are turned and washed repeatedly.

Turn the contents of the can out into a dish or pan, then feel the bottom of the receptacle with the tips of the fingers for sand or grit deposited by the water on the bottom.

If grit or sand is found to any extent, the goods should be refused. It is a most disagreeable experience to a consumer to find a mouthful of sand cooked with his greens.

The thick, coarse stems of the plant should not appear, and will not unless the spinach is too old and large.

See that all dead and yellow leaves have been taken out carefully.

A weight stipulation that is sometimes used is that spinach shall be packed 24 ounces of blanched spinach to a No. 3 can and 72 ounces of blanched spinach to a No. 10 can. This is about all that can be put in a can if it be processed safely. It is hard to judge whether this weight has been put in, however, except by the fill of the can, since weighing it cut out must necessarily include a lot of water which will not drain off quickly.

CHAPTER XLII.

CANNED SWEET POTATOES.

This article is packed almost exclusively in No. 3 and No. 2½ cans. It has been put on the canned food list during recent years.

Sweet potatoes are packed dry and as near whole as possible. They are parboiled or cooked and then peeled or skinned while hot. They are next placed in the can, pressed in, capped, sealed and processed.

Small potatoes that will go into the cap of the can are preferable; but of late sanitary cans have been used in preference to cap cans and larger potatoes used.

Owing to the heavy preliminary cook sweet potatoes are not difficult to process reliably.

The chief points of care in packing are to select sound potatoes, free from bruises or frost bite, and to prevent the potatoes from becoming water-soaked. They should not be impaled upon a fork when they are being peeled for packing in the cans, as these perforated potatoes seem to soak up moisture quickly and become watery.

The white or yam sweet potatoes of the South are not suitable for canning purposes, and the yellow or Jersey sweet variety is almost exclusively used.

Sweet potatoes originated in South America, and are very popular all through North and South American countries as a food product.

Buying and Selling Points.—See that sweet potatoes are packed dry, that is to say, that very little moisture appears in the can, and that the potatoes are not water-soaked, though they should be well cooked and soft. They should be packed as nearly whole as possible, in the can and of a uniform color. This later stipulation belongs, however, only to the fancy grade; packers are not so careful with the standard grade. The potato should be perfectly and carefully peeled, all discolored or black spots being removed. These spots are caused by blight, bruises in handling, or by frost or freezing.

CHAPTER XLIII.

STRAWBERRIES, BLUEBERRIES AND GOOSEBERRIES.

Strawberries have been known and grown for centuries and are probably the most delicious and popular of all berries, owing to their fragrance, flavor and abundance in season.

These berries are now to be had fresh at all times of the year, transportation and refrigeration having brought the gardens of the South to the thresholds of the North.

The canning of strawberries is difficult, as they will not withstand processing or "stand up" in the cans, and it is hard to put enough berries in a can to have them cut out a fairly acceptable quantity. Some varieties stand processing better than others, but there are so many varieties and so many claims of superiority that it is impossible to enumerate them.

The preservation of the color of the berries in canning, a most important feature, has been greatly simplied in a few years past by the use of inside enameled sanitary cans, which cans unquestionably do preserve that rich red color so essential to the acceptability of the canned product.

The heavier the syrup the better the strawberries will retain their color and flavor; and preserved goods, a pound of sugar to a pound of fruit, though expensive, are the best value.

Buying and Selling Points.—Strawberries packed in water are of but little value, as they shrink and fade until they are wholly undesirable for any purpose. Packers do themselves a great injustice and the canning industry a great injury when they put a small handful of strawberries in a No. 2 can and then fill the can with water, giving the consumer nothing for his money except an impression that all canned foods are a fraud and a swindle.

Even the packing of strawberries in No. 10 cans, in water, for preserving purposes, is a poor method of handling them.

See that the berries have been washed carefully and are free of sand; also that leaves and stems are absent from the cans.

The Baltimore standard for strawberries is: "Cans to cut out after draining not less than half full of fruit. This shall be sound and not of the variety known as seedlings, and must be put up in not less than 10 degrees cold cane sugar syrup."

Gooseberries.—This is a pie fruit, being naturally so sour and tart that it can not generally be used otherwise.

It makes a fine jelly and, when put up in glass "Wiesbaden" style, makes a handsome preserve. It is a very hardy berry and grows upon a shrub or bush yielding abundantly. Ripe gooseberries turn quite dark, but are seldom used, the fruit always being packed green. As a pie fruit it requires a great deal of sugar but has a delicious flavor.

Canners do not give much attention to gooseberries, but quite a quantity are nevertheless packed. They are heavy with seeds and are hard to process so that they will keep in cans more than one season. The large quantity of acid in the berry renders this still more difficult. They are packed usually "Stemmed and Blowed," this being done by a machine, but some still pack them with stems and blooms on the fruit.

Buying and Selling Points.—The Baltimore standard is: "Cans to cut out not less than two-thirds full after draining. Fruit unripe and uncapped put up in water."

See that all loose stems, sticks and leaves are absent from the cans. Bakers usually require these berries to be put up in No. 10 cans.

Blueberries.—These berries are almost exclusively used for pies, though some are packed in syrup in No. 2 cans and are delicious for tea table dessert. They are not, as some think, cultivated huckleberries, but are separate and distinct, fleshier and sweeter than huckleberries and are chiefly grown in high latitudes and are packed in Maine, Canada and Michigan, chiefly in No. 10 cans in water for pie fruit. It makes a most delicious pie, though the dark color of the berry is rather unsightly when used in pies.

Buying and Selling Points.—This berry when in cans is apt to swell if carried over from one season to another. The seeds seem to be hard to sterilize. See that cans are well filled with fruit, two-thirds to three-fourths full after draining, and that there is an absence of sticks, stems, leaves, etc. The berries should be ripe and of a good, meaty plumpness.

CHAPTER XLIV.

CANNED CHERRIES.

This fine fruit is found in a wild state in many parts of the world, and has been grafted, improved and cultivated until it is now one of the most luscious and desirable of small fruits.

The finest cherries produced in the world are grown in California, and the Royal Ann, Black Tartarian and Ox Heart varieties are well known upon the fruit stands as well as in cans.

The Royal Ann cherry of California is a white cherry with a red cheek. The red turns brown when the fruit is canned. The Ox Heart cherry of California is not so meaty or richly flavored as the Royal Ann, but it has a distinctive or "pit flavor" of its own, which is greatly relished by some.

The Black Tartarian is really the finest flavored of all, but its color is not so refined or attractive as that of the white varieties, and it is, therefore, much less salable in cans. But when sold fresh in boxes it far surpasses in sales the white varieties.

The Baltimore Canned Foods Exchange has a standard for red cherries as follows: "Cans full of fruit, free of specks or decay, put up in water." The same standard applies to white cherries except that they are to be packed in 10 degrees cold cane syrup.

Red or Sour Cherries, as they are called, have recently attained an enormous consumption as pie stuff. They are put in No. 10 cans, pitted by machinery, and are largely distributed, so that the world has cherry pie all the year around. These cans of pitted red sour cherries are put up in the juice of the fruit. Inside enameled sanitary cans are generally used, as they are found to preserve the color of the fruit.

The value of these No. 10 cans of pitted pie cherries is largely based upon color, fullness of cans and freedom from pits, as all are sometimes not perfectly pitted. Red and white cherries in the East are packed in No. 2 cans in water, and in various degrees of syrup, both pitted and unpitted.

When packed with the pits in cherries are very apt to swell or spring at the approach of warm weather. Pitted goods are less liable to that trouble.

CHAPTER XLV.

CANNED PLUMS.

The plum tree is as old as the history of the world, and some varieties are to be found in nearly all known countries. It is a hardy tree and grows in most any kind of soil, when well watered, and is not very susceptible to frost.

The varieties have probably all been developed from one source, and their number is legion. The best known kinds and those that are now most extensively cultivated are the following: Green Gages, Egg Plums, Damson Plums, Prune Plums, Gold Drop Plums, Lombard Plums, Red Plums, etc.

Plums seem to be grown to their greatest perfection in California, Washington and Oregon, beyond the Sierra Madre and Cascade mountain ranges. Prunes are merely dried plums.

The plum when raised from the seed is apt to degenerate or to return to its original wild state, consequently it is chiefly reproduced from cuttings.

Plums are usually canned with the pit, and therefore apt to swell the cans, and it is risky to carry over from season to season. This fruit makes a fine dessert or good pies, and some varieties, especially damsons, are largely used for preserving purposes.

Plums are packed in No. 2, 2½, 3 or 10 cans. Being a very prolific producer, this fruit is put into cans at a very low cost and sold, merit considered, at a very low price.

Some of the green gage and egg plums of California grow to as large size as hen eggs and are of superb flavor and merit.

Pitted plums in cans do not seem to be salable. New York State and Michigan cultivate plums extensively and put large quantities of them into cans. Some canneries separate plums into four sizes before canning by running them over screens.

CHAPTER XLVI.

CANNED MEATS.

Canned meats are prepared now on a very extensive scale, and the processes of this preparation have been gradually perfected until they are generally canned with strict regard to cleanliness, sanitation, purity, net weight and merit, as much so as any canned product known. They are usually prepared in or in connection with the great fresh-meat packing houses and are packed in a large variety of styles and in numerous sizes of cans. Meat canners are exceedingly progressive in their methods. They usually lacquer all their cans, label in a neat and generally attractive style, and prepare their goods for sale in tempting form. They are thus in advance of any other class of canned food packers. The buying points for canned meats involve tests of weight, soundness, flavor and freedom from misbranding or labeling wrongly.

A friend of mine (Edward G. McDougall, of Chicago), who is connected with one of the largest canned meat establishments known, has written of them as follows:

"While the canning of meats for commercial purposes was established nearly a century ago, during the last twenty-five years it has grown to such an extent that today cooked corned beef, sliced dried beef, veal loaf, chille con-carne, potted and deviled meats, vienna sausage, etc., etc., are considered a necessary part of a retail grocer's stock, and these foods can be found in most of the homes throughout this country.

All meats are canned under Government inspection. The utmost cleanliness is used in their preparation and canning, and their purity is assured. Preservatives are entirely unnecessary, as canned meats are preserved by heat alone and their wholesomeness is unquestioned.

They are being used more and more in the homes of our people; and the great armies and navies of the world, when they begin active operations, are always provisioned with canned meats.

Many people have an idea that these products are expensive; but they will not think so when they stop to consider that a ham, which they purchase in the ordinary manner from the retail butcher, weighing (we will say for example) eighteen to twenty pounds, when taken home and cooked and the skin, bone and non-edible fat removed, will shrink to nine or ten pounds, a shrinkage of 50 per cent, and that to

this must be added the cost of fuel, the time spent in and the inconvenience of doing the cooking. What is true of ham is applicable to all sorts of meats. There is a very heavy shrinkage in cooking, whereas in ready-to-eat meat products, the house-wife gets just what she pays for, properly prepared by an expert chef under ideal sanitary conditions, without the trouble and expense of cooking.

Canned meats will keep for a lifetime and are ready to serve at a moment's notice.

Variety of menu is one of the greatest attractions of every well managed household. Here again is where canned meats are a great aid, for the possibilities are almost without limit if the pantry is supplied with boneless chicken, deviled ham, ox tongue, corned beef hash, sliced bacon, Mexican tamales, tripe, sliced dried beef, chop suey, sausages, sausage meat, corned beef, chile-con-carne, or any other of these convenient, nutritious and appetizing table delicacies."

CHAPTER XLVII.

CANNED MILK.

One of the most important and most commendable branches of the canning industry is that of condensed milk. This branch of the industry brings great pleasure and luxury to those who go down to the sea in ships; to the armies of the world; to the pioneers of the earth, and to all those who travel, explore or follow their occupation upon the confines of civilization.

If the babies of the world were to vote upon the popularity of the various canned products, condensed milk would be unanimously chosen. Millions of the motherless little ones, and those needing more than a mother's milk, have been nurtured by condensed milk.

The industry is most thoroughly placed under and controlled by Government and State inspection, and the product is prepared with the utmost scientific care and with scrupulous regard to wholesomeness and to sterilization.

Milk canneries are usually located in the country in dairying districts, and the dairies, as well as the canneries, are carefully inspected.

Milk is packed in cans containing 6, 12 or 16 oz. of contents—usually in cases of 3 doz., 4 doz., or 6 doz. cans, according to size of cans.

The process of condensation or manufacture is quite complicated, and was first undertaken as a useful and commercial enterprise by Gail Borden, of West Plains, New York, in 1849. He began the manufacture of "Plain Condensed Milk" at that time, but in 1851 he introduced "Preserved Condensed Milk," or milk mixed with a heavy

percentage of sugar. In 1861 and all during the war between the States he furnished this product to the great armies of the North. He thus became a man of wealth, as the demand for this product grew steadily.

In 1865 the canning of milk was introduced into Switzerland, and since then into many or most of the countries of the world.

Condensed milk can be used for many of the purposes (though not all) for which fresh milk or cream can be used.

In the past decade milk that is evaporated, or thinly condensed, has, to an important extent, superceded preserved milk in popular use. Evaporated milk is prepared entirely without sugar and is absolutely sterile, thereby being superior in that respect to preserved milk.

Buying Points and Selling Points for condensed or preserved milk are freedom from what is called "rough milk"—meaning milk which becomes lumpy or granulated in processing; good, bright color, and the flavor as near that of natural milk as possible.

CHAPTER XLVIII.

CANNED OKRA.

This vegetable is an old-world plant and its history extends into remote ages. It has for many years been cultivated in the United States, but grows best in Southern latitudes, being to a certain extent tropical in its nature. It is a plant that produces a capsule or seed case, and this is the part of the plant which is eaten. The capsule grows from four to ten inches in length and is eaten green, being prepared by boiling and mingling with a butter sauce like asparagus, or being pickled. It is canned in Louisiana and Mississippi and, to a limited extent, in Baltimore.

Its most extensive use is as a base for Gumbo soup (the plant is also called Gumbo). It makes a very fine, rich soup, which, on account of the mucilaginous nature of okra, is very thick.

The most desirable kind of okra is known as the dwarf okra, packed in Louisiana. It has a small pod or capsule that seems to retain its green color when canned as well as to have a certain desirable flavor.

Buying and Selling Points.—The pods should be cut or sliced into pieces about half an inch in length and should be of fresh, green color. If the vegetable is too mature when canned it is not so succulent and is apt to turn red from the processing. The article is of limited sale, not being well known to the consuming public. It should be bought in small quantities until a trade is established for it. In many parts of the Southern United States it is quite popular, but it is not well known in other sections of this country.

CHAPTER XLIX.

CANNED SHRIMP.

Shrimp are sometimes called saltwater crayfish, but not properly so, as there is another species of the same genus of saltwater crustaceans known as crayfish, which grow much larger than shrimp.

Shrimp are denizens of deep saltwater except twice a year, Spring and Fall, when they come to shallow water near the shores. The canning of shrimps in the United States is confined almost entirely to the Gulf of Mexico, as the fish is not either large or abundant elsewhere.

Putting up shrimps in this way was begun in 1867 by G. W. Dunbar, of New Orleans. His first efforts were unsatisfactory, as the shrimps contained so much phosphorus that the meat would turn black when in contact with the tin.

In 1875 Mr. Dunbar devised the plan of placing the shrimps in a small cloth bag and then canning them, the bag protecting the meat from contact with the tin. Afterward the cans were lined with thin sheets of wood veneer, and later with oiled paper. All of these methods have their advantages and all are good.

Shrimps are caught with long seines—sometimes one thousand feet or more in length. When a school is located in water near the shore the seine (which is ten feet deep and has a three-quarter inch mesh) is drawn around the school and pulled in to the shore until the fish can be dipped up.

When caught shrimps are of a greyish-white color. They are quite delicate and quickly spoil, so they are carefully iced in barrels, taken to the cannery and peeled.

The body, with the exception of the meat of the tail, is thrown away as useless. When the meat is peeled out of the shell and thoroughly washed it is boiled in salt water. This causes it to turn red or pink.

It is then packed in No. 1 cans, containing 4½ ounces of meat, or in No 1½ cans, containing nine ounces of meat. It is then processed in the usual way. It is unsafe to pack a greater weight into cans, as the shrimps are apt to solidify, or cake into a solid mass.

Nearly all the consumption now is of wet packed shrimps, processed with a pickle or with brine in the can.

The dry packed always exude an odor and are never so fresh and sweet of flavor as the wet packed.

The catch or run of shrimp is very uncertain and is largely influenced by the weather—a most unreliable factor on the Gulf Coast. Heavy storms or rough weather seem to deter the shrimp from approaching the shores and to keep them in deep water. On that ac-

count canneries are frequently compelled to close without packing a shrimp, and values are apt to fluctuate sharply with the state of the supply.

Shrimps are pleasing to the taste and delicate of flavor, and for salads and stews are preferred by many persons to lobster.

Buying and Selling Points.—See that the meat is free from discoloration. The lining of the can may be discolored next to the tin, but if the meat is not discolored it is acceptable. The shrimps should be carefully peeled, no shell being left on them, and the viscera should be entirely removed. The very large shrimps are apt to be tough and dry, and on that account the medium-sized ones are more desirable.

In dry shrimps in cans the odor cannot be avoided. It is sometimes quite strong when the can is first opened, but it soon evaporates and the meat will be found sweet and good. On this account, however, wet packed shrimps are preferable, as the brine facilitates the sterilization and removes all odor.

CHAPTER L.

CANNED RHUBARB.

Rhubarb is a plant of which the stalks are used in a similar manner to those of asparagus; but, on account of its strong acidity, rhubarb is used for pies and sauces, in lieu of fruit, rather than as a vegetable. It is a very early spring plant, and, coming just after a long winter, constitutes a very agreeable change of diet. It is, therefore, popular until superseded or displaced by berries or other fruits.

It is canned in a somewhat limited way (though it should not be), as it is an unsafe product for canning. The acid of this article is so powerful that it soon dissolves the tin coating on the cans, in fact, canned rhubarb which is more than six months old is unfit for human consumption and is dangerous. On this account the canning of rhubarb is gradually declining, and will soon be entirely discontinued. The writer of this article has had several very startling and disagreeable experiences with canned rhubarb.

Buying and Selling Points.—See that the cans are well filled with rhubarb cut into pieces about an inch in length and that they are sold quickly. Rhubarb should be bought by the wholesaler and by the retailer with the understanding that it is to be used promptly. After it has been six months in the can it should be carted to the dump and destroyed.

Inside enameled cans are of no benefit in canning this article, as its acid will absorb the enamel.

CHAPTER LI.

CANNED CRABS.

In this country crabs are canned almost wholly on Chesapeake Bay. James McMenamin was the founder of the industry in 1878 or 1879 at Norfolk, Va., afterward removing his cannery to Hampton, Va. The ocean is full of crabs and the supply unlimited, the season being from April until October. There are two styles of canned crabs. One is the shredded crab meat and the other is known as "Deviled Crabs," but the process in preparing the meat is the same.

Crab meat is difficult to keep from discoloration, but not so much so as shrimps or lobsters. It is not a very popular article in cans, and the sale is rather limited, though it should be more appreciated, as it is of great merit. There is a sweetish and a phosphorescent flavor about canned crab meat that some people dislike, and which does not seem to be present when fresh crabs are eaten. The ordinary blue crab of all the oceans is the kind used for canning in this country.

The meat is extracted from the shells either by a cyclone or centrifugal drum or by the use of compressed air. The latter blows the meat out of the shell. It was formerly picked out by hand.

The meat should be of a grayish or bluish white color, and the cans well filled, but free from any appreciable quantity of brine, also free of shells and viscera.

There is an article called "Japanese Crab Meat" which is now extensively imported into this country.

It is packed in Japan in No. 1 flat and No. ½ flat cans. It is very white and has a flavor very closely resembling that of lobster, but the meat is tougher. It is used largely in restaurants and hotels as a substitute for lobster, and when carefully prepared none but an expert can distinguish the two.

The Japanese crab is prepared from what is known as the spider crab, which grows to quite a large size in the Pacific Ocean, weighing sometimes as much as twenty pounds. It is an ugly crustacean, and looks more like a typical devil of the deep than any other denizen of the water except an octopus.

It is a clean feeder, however, and its meat is sweet and fine flavored. The Japanese crab meat industry has grown to enormous proportions in the past decade. The meat should be white, clean and free from shell. Cooking turns exposed portions of the meat a bright pink, as in the case of shrimps, but the inside portions remain white. It is not shredded like crab meat packed in this country, but is packed in solid pieces in the can.

Some attempts to pack crab meat on the Pacific Coast have been quite successful in producing a good food made from blue crabs, but so far the production has been very small.

CHAPTER LII.

CANNED GRAPES.

This most ancient and honorable fruit is probably oftener spoken of in literature than any other—more, however, in respect to its use in the manufacture of wine than as an article for canning purposes. Grapes are wholesome and pleasing to the taste, and whether dried as raisins or canned, or made into wine or jelly, juice or vinegar, the fruit probably is in more general use than any other.

The canned grape never has attained the popularity which it deserves, because it seems to retain its flavor almost in perfection when canned (if in light syrup).

In the East the common Concord or black grape is canned to a very limited extent. Here, also, some white grapes are canned.

In California the white or Muscatel grape is used for canning, and at first was exceedingly popular and salable. But the debauching of the quality of canned grapes by some packers who cared more for the immediate present than for the future, and a tendency of the fruit to swell the cans when lightly processed, bringing trouble and loss to all concerned in handling them, caused a heavy decrease in the demand for canned grapes, so that wholesale grocers have almost quit including them in their assortments when contracting.

This is a great pity, as canned Muscatel grapes are not only cheap, but exceedingly wholesome and an excellent dessert.

In late years canners have begun to improve the quality. The cheaper classes of packers have about discontinued packing since they cannot sell them.

They now grade the grapes for size—using only the larger sizes for canning and letting the smaller sizes be used for other purposes. This has brought back the demand to some extent, and it is now growing.

Grapes are also being processed more carefully, so as to stop the germinating tendency in the seeds, as well as the liability to swell and spring the cans.

Buying Points.—Grapes to be white (the dark varieties will not sell); to be packed in enough syrup to make them palatable, but not in such heavy syrup as to destroy the natural flavor; to be free from stems and leaves; not to be too generally split open in processing, and to be large, of uniform size and free from brown discoloration or rust.

CHAPTER LIII.

CANNED SOUPS.

The putting up of soups has become quite an important branch of the canning industry. The manufacture of soup is quite complicated. It requires not only scientific knowledge of the processes of preparation and of canning, but it also requires great skill and experience in cooking. Hence the most able and experienced chefs are employed by the soup canneries to prepare the many kinds of soups which are placed upon the market. Then to sell soups (which are canned the year round) and to keep the sale equal to the production, expensive methods of advertising and sales managing are essential.

Under the circumstances, not only experience, but a large capital, is required to conduct successfully the manufacture and sale of soups. The establishments engaged in these enterprises in the United States can, therefore, be numbered on the fingers of both hands.

There are two kinds of soups manufactured and marketed in the United States—the liquid, ready to serve out of the can when warmed, and the condensed, which are to be mixed with other ingredients like milk, cream or water, before using.

Many sorts of soups are canned, among them being the following: Bouillon, Beef, Celery, Ox Tail, Mock Turtle, Veal, Chicken, Gumbo or Okra, Consomme, Green Turtle, Clam Broth, Clam Chowder, Mutton Broth, Tomato, Tomato and Okra, Vegetable, Pea, Asparagus, Mulligatawney, Vermicelli, Julienne, Cray Fish, Crab, Lobster, Fish Chowder, etc., etc.

Soups are prepared in canneries that are regularly inspected by the United States government inspectors as nearly all soups are based upon meat or meat juices, and all meats intended for interstate or foreign commerce are prepared under government supervision.

It follows that the meats used are of the very best quality (as are all materials used by the big soup canneries), and the canneries are as clean and neat as it is possible to make them by the use of water, steam and labor.

The prices at which canned soups are retailed are less than they can be produced for at home, and the product is usually superior.

Buying Points are very difficult to name. The palatability and relish of the soups on the table, the fill of the can, and, in condensed soups, the result of developing them according to direction, and the merit when developed are about the only general guides to judgment that can be recommended.

CHAPTER LIV.

CANNED FOOD STATISTICS.

According to the United States census of 1909, the Canning Industry was analyzed as follows. These figures are, of course, somewhat incomplete, but they are probably as accurate as can be obtained by the method used by the Census Bureau:

Total number of cases of canned food products..... 62,700,000
Total number of canneries..... 3,767
Total capital invested.....$119,207,000
Total paid for raw materials.....$101,823,000
Total value of finished product..... 157,101,000

Seasons for packing various products in the different States.

State.	Apples.	Apricots.	Asparagus.	Baked Beans
Arkansas	Jul. 23 to Aug. 15	.....	.....	.....
California	Sep. 17 to Nov. 26	June 1 to Aug. 10	Mar. 25 to July 1	.....
Colorado	Sep. 1 to Oct. 31	.....	May 1 to June 30	.....
Connecticut	Sep. 30 to Oct. 30	.....	.....	.....
Delaware	Sep. 20 to Oct. 10	.....	.....	.....
Georgia	Aug. 1 to Sep. 1	.....	.....	.....
Illinois	Aug. 10 to Nov. 15	.....	May 20 to Jun. 20	Jan. to Dec.
Indiana	Oct. 1 to Nov. 15	.....	.....	....do .....
Kansas	Oct. 1 to Oct. 28	.....	.....	.....
Maryland	Oct. 1 to Nov. 1	.....	.....	Jan. to Dec.
Massachusetts ..	.....	.....	.....	....do .....
Michigan	Aug. 1 to Nov. 1	.....	.....	....do .....
Minnesota	Aug. 15	.....	.....	....do .....
Missouri	Sep. 18 to Oct. 17	.....	.....	.....
Nebraska	Sept. 1 to Nov. 1	.....	.....	.....
New Jersey.....	.....	.....	May 13 to July 1	Jan. to Dec.
New Mexico	Oct. 15 to Dec. 25	Aug. 1 to Aug. 15	.....	.....
New York.....	Sep. 15 to Dec. 31	Jul. 20 to Aug. 20	May 10 to July 15	Jan. to Dec.
Ohio	Oct. 1 to Nov. 20	.....	.....	.....
Oregon	Aug. 25 to Dec. 1	.....	.....	.....
Pennsylvania ...	July 1 to Dec. 1	.....	.....	.....
Tennessee	Oct. to Nov.	.....	Apr. 15 to May 10	.....
Utah	July 25 to Dec. 1	July 24 to Oct. 1	Apr. 26 to Jun. 10	.....
Virginia	Sep. 1 to Oct. 20	.....	.....	.....
Washington	Aug. 15 to Dec. 10	July 1 to Aug. 1	.....	.....

Season for packing various products in the different States—Continued.

State.	String beans	Beets	Blackberries.	Cherries.
Arkansas	.....	.....	July 1 to Aug. 15	.....
California	Aug. 1 to Sep. 15	.....	May 20 to Sep. 10	May 15 to Jul. 28
Colorado	.....	.....	.....	June 15 to Aug. 1
Delaware	.....	.....	July 1 to July 20	.....
Georgia	July 1 to Aug. 1	.....	Jun. 1 to Jun. 20	.....
Illinois	.....	.....	.....	Jun. 15 to Jul. 15
Indiana	June 1 to Oct. 1	.....	.....	.....
Kansas	June 8 to July 27	.....	.....	.....
Maryland	Jul. 10 to Aug. 20	.....	July 4 to July 20	Jun. 8 to Jun. 30
Michigan	Jun. 10 to Sep. 15	July 1 to Oct. 1	Jul 15 to Aug. 24	Jun. 25 to Aug. 10
Minnesota	.....	June 20 to Oct. 22	.....	.....
Nebraska	Jun. 10 to Jul. 15	.....	July 1	July
New Jersey	.....	Jun. 15 to Jul. 25	July 5 to July 15	June 9 to June 30
New York	July 1 to Oct. 28	Jul. 15 to Nov. 25	July 23 to Sep. 1	June 20 to Aug. 1
Ohio	July 1 to Sep. 30	Jun. 15 to Nov. 25	July 1 to Aug. 10	Jun. 1 to Jun. 30
Oregon	July 15 to Oct. 15	.....	Jul. 15 to Oct. 15	Jun. 10 to Aug. 20
Pennsylvania	July 10 to Oct. 15	Aug. 1 to Sep. 15	.....	Aug. 17 to Oct. 1
Tennessee	Jun. 15 to Jul. 10	.....	Jun. 15 to July 5	May 25 to Jun. 25
Utah	June 30 to Oct. 1	.....	.....	July 1 to Aug. 15
Vermont	Jul. 20 to Aug. 20	.....	.....	.....
Virginia	Jul. 20 to Aug. 30	.....	Jul. 1 to Aug. 1	Jun. 1 to Jun. 30
Washington	.....	.....	.....	Jun. 25 to Jul. 20
Wisconsin	Jul. 10 to Aug. 25	.....	.....	.....

State.	Corn.	Currants.	Gooseberries.	Grapes.
California	.....	Jun. 5 to Jun. 30	May 21 to June 1	Aug. 1 to Dec. 1
Colorado	.....	Jun. 15 to Aug. 30	May 15 to Jun. 30	.....
Delaware	Jul. 15 to Sep. 15	.....	.....	.....
Illinois	Aug. 1 to Oct. 1	.....	.....	.....
Indiana	Aug. 1 to Oct. 15	.....	.....	.....
Iowa	Aug. 5 to Oct. 1	.....	.....	.....
Kansas	Jul. 24 to Sept. 15	.....	.....	.....
Maine	Aug. 20 to Sep. 20	.....	.....	.....
Maryland	Aug. 1 to Oct. 20	.....	.....	.....
Massachusetts	.....	.....	.....	.....
Michigan	Sep. 1 to Oct. 1	July 1 to Aug. 1	Jun. 20 to Jul. 30	.....
Minnesota	Aug. 1 to Oct. 1	.....	June 1 to July 1	.....
Missouri	Aug. 10 to Sep. 27	.....	.....	.....
Nebraska	Aug. 1 to Oct. 1	.....	.....	.....
New Hampshire	Aug. 25 to Sep. 20	.....	.....	.....
New Mexico	.....	.....	.....	Sep. 15 to Oct. 1
New York	Jul. 26 to Oct. 17	July 1 to Aug. 5	June 20 to Aug. 1	.....
Ohio	Aug. 1 to Nov. 1	.....	Jun. 10 to Jun. 20	.....
Oregon	.....	Jun. 1 to July 15	June 1 to July 10	Sep. 15 to Oct. 15
Pennsylvania	Aug. 15 to Oct. 15	.....	.....	.....
Utah	.....	.....	Jun. 15 to July 10	.....
Vermont	Aug. 25 to Sep. 25	.....	.....	.....
Virginia	July 20 to Oct. 20	.....	June 1 to June 30	.....
Wisconsin	Aug. 10 to Oct. 10	.....	.....	.....

Season for packing various products in the different States—Continued.

State.	Hominy.	Lima Beans.	Okra.	Peaches.
Alabama				Jul. 15 to Aug. 15
Arkansas				Aug. 1 to Oct. 1
California				Jun. 25 to Oct. 25
Colorado	Jan. to Dec.			
Delaware			Aug. 15 to Sep. 15	Jul. 25 to Aug. 15
Florida			June 1 to July 1	
Georgia				Jun. 20 to Jul. 25
Illinois	Jan. to Dec.			Sep. 10 to Oct. 10
Indiana	Jan. to Dec.			
Louisiana			July 20 to Aug. 20	
Maryland		Aug. 1 to Sept. 1	Aug. 10 to Aug 30	
Michigan		Aug. 15 to Sep. 20		Sep. 11 to Nov. 1
Missouri				Aug. 11 to Sep. 5
Nebraska				Sep. 10 to Oct. 10
New Jersey		Aug. 1 to Sep. 30	June 1 to Sep. 20	
New Mexico				Sep. 1 to Oct. 1
New York	Jan. to Dec.	July 29 to Oct. 15		Aug. 25 to Oct. 20
Ohio	Jan. to Dec.	Aug. 10 to Oct. 30		Aug. 10 to Aug.31
Oregon				Aug. 10 to Oct. 10
Pennsylvania	Jan. to Dec.	Aug. 15 to Sep. 15		
Tennessee				Jul. 20 to Aug. 20
Texas				June 15 to Sep. 1
Utah				Sep. 6 to Oct. 6
Virginia				Aug. 1 to Oct. 15
Washington				Jul. 15 to Sep. 30

State.	Peas.	Pears.	Pineapples.	Plums.
California	May 20 to Jun. 20	July 1 to Oct. 27		July 1 to Sep. 10
Colorado		Jun. 15 to Aug. 15		
Connecticut			Sep. 30 to Oct. 20	
Delaware	June 1 to June 30	Sep. 20 to Oct. 20		
Florida			May 15 to Sep. 1	
Georgia	June 1 to June 15			
Illinois	Jun. 14 to Jul. 14			
Indiana	May 26 to Jul. 15			
Kansas	Jun. 5 to Jun. 30			
Maryland	June 5 to July 1	Sep. 1 to Nov. 1		
Massachusetts		Oct. 1 to Nov. 1	Jun. 2 to Jun. 10	
Michigan		Aug. 20 to Nov. 5		
Minnesota	June 15 to Aug. 1			
New Jersey	June 6 to June 25	Oct. 10 to Nov. 15		
New Mexico		Sep. 15 to Oct. 15		
New York	Jun. 15 to Aug. 31	Aug. 29 to Nov. 9	May 14 to Jun. 25	Aug. 5 to Sep. 20
Ohio	Jun. 1 to Jul. 10			
Oregon	Jun. 1 to Jul. 20	Aug. 25 to Oct. 10		
Tennessee		July 25 to Oct. 25		
Texas	July 1 to Sep. 1	July 15 to Aug. 30		
Utah	Jun. 10 to Jul. 25			
Virginia	May 20 to Jun. 19	Aug. 26 to Sep. 18		
Washington		Sep. 1 to Oct. 15		
Wisconsin	Jun. 15 to Aug.28	Aug. 1 to Oct. 15		

Season for packing various products in the different States—Continued.

State.	Pumpkin.	Quince.	Raspberries.	Rhubarb.
Arkansas	Oct. 15 to Nov. 15			
California	Sept. 15	Sep. 6 to Nov. 2	June 28 to Oct. 6	
Colorado	Oct. 1 to Dec. 31			May 15 to Jun. 30
Delaware	Oct. 10 to Oct. 20			
Illinois	Aug. 10 to Nov. 20			
Indiana	Oct. 1 to Nov. 20			
Kansas	Oct. 1 to Nov. 24			
Maryland	Sep. 10 to Oct. 10			
Massachusetts		Oct. 1	July 3 to July 18	
Michigan	Oct. 1 to Dec. 25		July 1 to July 15	July 1 to Aug. 1
Minnesota	Sep. 25 to Nov. 7		Sep. 1 to Oct. 1	June 1 to July 1
Missouri	Sep. 15 to Nov. 15			
Nebraska	Oct. 1 to Nov. 1			June 1 to July 1
New Jersey	Sep. 1 to Nov. 1			
New Mexico	Nov. 1 to Nov. 15			
New York	Sep. 10 to Nov. 13	Oct. 1 to Dec. 1	Jun. 25 to Aug. 15	May 15 to July 1
Ohio	Sep. 25 to Nov. 24		Jun. 7 to July 20	
Oregon	Aug. 15 to Dec. 1		Jun. 15 to Jul. 15	June 1 to July 30
Pennsylvania	Sep. 20 to Nov. 30			
Tennessee	Oct. 15 to Nov. 15		Jun. 15 to July 8	
Utah	Oct. 15 to Nov. 15		Jul. 15 to Jul. 30	May 15 to Jun. 30
Virginia		Sep. 1 to Sep. 30	June 1 to June 30	
Wisconsin	Oct. 10 to Nov. 12			

State.	Sauerkraut.	Spinach.	Squash.	Strawberries.
California			Nov. 1 to Nov. 13	Jul. 16 to Sep. 28
Colorado	Oct. 15 to Mar. 31			May 30 to Jun. 30
Connecticut			Sep. 30 to Nov. 20	
Delaware			Oct. 10 to Oct. 20	Jun. 6 to Jun. 30
Georgia	Sep. 1 to Dec. 30			
Illinois	Sep. to Nov.			
Indiana	Sep. 1 to Apr. 1			
Kansas	Sep. 1 to Dec. 1		Nov. 2 to Nov. 24	
Maryland				Jun. 20 to Jul. 4
Massachusetts				June 1 to July 8
Michigan				Jun. 15 to Jul. 15
Minnesota	Dec. 1 to Jan. 1	Jun. 15 to July 1		
Nebraska		June 1	Oct. to Nov.	
New Jersey		Sep. 15 to Jun. 25	Sep. 20 to Oct. 30	June 1 to June 21
New Mexico	Dec. 26 to Feb. 1			
New York		June 10 to July 1	Sep. 15 to Dec. 1	May 30 to Jul. 15
Ohio	Sep. 11 to Feb. 1	May 25 to Nov. 30	Oct. 1 to Nov. 10	May 25 to Jun. 30
Oregon			Sep. 15 to Dec. 1	June 6 to July 20
Tennessee				June 1
Texas				July 1 to Sep. 1
Utah	Aug. 1 to Oct. 20		Oct. 1	

Season for packing various products in the different States—Continued.

State.	Succotash.	Sweet Potatoes.	Tomatoes.
Alabama	.....	Nov. 1 to Dec. 1	Aug. 1 to Oct. 10
Arkansas	.....	.....	Aug. 1 to Oct. 1
California	.....	.....	Aug. 8 to Dec. 1
Colorado	.....	.....	Aug. 20 to Oct. 1
Connecticut	.....	.....	Aug. 15 to Nov. 1
Delaware	.....	Oct. 6 to Oct. 18	Aug. 1 to Oct. 20
Georgia	.....	Aug. 1 to Sep. 1	Aug. 10 to Oct. 1
Illinois	.....	.....	Aug. 10 to Oct. 20
Indiana	.....	.....	Aug. 1 to Nov. 1
Iowa	.....	.....	Aug. 10 to Oct. 15
Kansas	.....	Oct. 8 to Oct. 26	July 27 to Oct. 5
Kentucky	.....	.....	Aug. 1 to Sep.
Maryland	Aug.	Oct. 10 to Nov. 1	Aug. 20 to Oct. 20
Massachusetts	.....	.....	Sep. 1 to Oct. 1
Michigan	.....	.....	Aug. 15 to Nov. 1
Minnesota	.....	.....	Sept. 1 to Oct. 10
Mississippi	.....	.....	July 20 to Oct. 30
Missouri	.....	.....	Aug. 20 to Oct. 1
Nebraska	Sept. 1	.....	Sep. 1 to Oct. 5
New Jersey	.....	Oct. 1 to Nov. 1	Aug. 15 to Oct. 25
New Mexico	.....	.....	Aug. 1 to Nov. 1
New York	Aug. 15 to Oct. 15	.....	Aug. 1 to Nov. 2
Ohio	Aug. 1 to Sep. 1	.....	Aug. 10 to Nov. 15
Oregon	.....	.....	Sep. 1 to Nov. 1
Pennsylvania	Feb. 15 to Sep. 15	.....	Aug. 1 to Nov. 1
Tennessee	.....	.....	Jul. 15 to Nov. 15
Texas	.....	Oct. to Nov.	June 15 to Sep. 1
Utah	.....	July 1 to Sep. 1	Aug. 7 to Oct. 30
Virginia	.....	.....	Aug. 15 to Oct. 15
West Virginia	.....	.....	Aug. 1 to Nov. 1
Wisconsin	.....	.....	Aug. 15 to Oct. 1

ANNUAL TOMATO PACKS

Compiled By "THE Canning TRADE"

This Table gives the Tomato Packs for each year, of each important state or group of states, and also the total annual packs for the entire country; the figures indicate CASES, not CANS. But all size cans used are reduced to the No. 3 size 24 to the case. Table on page following.

STATES	1906	1907	1908	1909	1910	1911	1912	1913
Maryland	3,209,953	5,294,253	4,716,000	4,609,000	3,675,000	3,908,000	6,350,000	6,280,000
Delaware	728,365	1,368,866	940,000	1,236,000	992,000	931,000	1,398,000	1,646,000
New Jersey	545,628	914,844	651,000	944,000	519,000	570,000	799,000	883,000
Va. and W. Va.	102,537	1,070,409	607,000	985,000	630,000	681,000	882,000	945,000
Indiana	1,469,167	1,172,095	1,126,000	852,000	537,000	806,000	792,000	883,000
New York	274,798	217,695	369,000	298,000	118,000	193,000	490,000	487,000
Ohio	276,243	410,876	406,000	339,000	209,000	293,000	283,000	326,000
Missouri	255,419	225,325	546,000	244,000	350,000	120,000	435,000	128,000
Pennsylvania	74,169	106,888						
Kentucky	76,783	76,905	611,000	223,000	164,000	188,000	380,000	387,000
Tennessee	.....	59,290						
Iowa	155,000	60,121						
Michigan	17,160	50,000	546,000	247,000	258,000	269,000	348,000	290,000
Illinois	67,860	51,239						
Minnesota	17,700	1,200						
Washington	.....							
Utah	332,267	424,806	779,000	930,000	463,000	444,000	1,750,000	1,788,000
Colorado	100,075	60,107						
California	838,792	1,227,364						
Nebraska	4,438	5,600						
Kansas	23,938	22,628	182,000	77,000	116,000	46,000	115,000	108,000
Other States	50,076	97,695						
TOTALS	9,074,965	12,920,185	11,479,000	10,984,000	8,031,000	8,449,000	14,022,000	14,206,000

CORN PACK OF THE UNITED STATES FROM 1905 TO 1913, INCLUSIVE

FIGURED 24 CANS TO THE CASE

STATE.	1905	1906	1907	1908	1909	1910	1911	1912	1913
Illinois	1,963,617	1,243,106	1,319,525	856,000	1,134,000	2,027,000	2,771,000	2,438,000	1,330,000
Iowa	2,557,104	1,815,900	1,248,725	1,085,000	902,000	1,720,000	2,744,000	2,961,000	884,000
Maine	1,348,751	939,698	1,090,624	970,000	698,000	1,487,000	1,545,000	801,000	650,000
Ohio	1,140,631	648,796	361,560	933,000	677,000	936,000	1,412,000	1,376,000	984,000
New York	1,583,969	1,422,012	659,391	620,000	634,000	1,145,000	1,700,000	1,009,000	393,000
Maryland (Includes Va.)	1,676,240	1,058,492	875,506	1,010,000	432,000	970,000	1,637,000	1,517,000	1,023,000
Wisconsin	443,055	441,711	169,120	343,000	422,000	222,000	351,000	519,000	377,000
Indiana	1,025,606	621,433	380,778	301,000	405,000	746,000	796,000	1,235,000	785,000
Minnesota	272,000	190,933	123,945	124,000	78,000	200,000	301,000	321,000	188,000
Missouri	47,100	29,100	18,600						
Michigan	145,152	119,300	68,300						
Delaware	95,300	110,040	75,000	246,000	240,000	443,000	777,000	658,000	466,000
Vermont (Included in Maine until 1909)	.....	.....	.....						
Pennsylvania	220,022	199,920	68,570						
Nebraska	441,000	251,300	164,000	Reported in Other States, after 1907					
Kansas	53,887	32,819	23,400						
All Other States	5,231	12,400	7,000	296,000	165,000	167,000	267,000	274,000	203,000
TOTALS	12,523,778	9,136,959	6,653,744	6,779,000	5,787,000	10,063,000	14,301,000	13,109,000	7,283,000

PEA PACK OF THE UNITED STATES FROM 1906 TO 1913, INCLUSIVE.

FIGURED No. 2 CANS, 24 TO THE CASE.

STATES.	1906	1907	1908	1909	1910	1911	1912	1913
Wisconsin	1,409,497	1,507,710	2,200,000	1,878,000	1,086,000	1,520,000	2,658,000	3,348,000
New York	1,314,832	1,509,997	1,325,000	1,378,000	1,356,000	1,145,000	1,514,000	2,252,000
Indiana	364,085	766,972	492,000	447,000	261,000	259,000	323,000	419,000
Michigan	342,901	578,000	492,000	373,000	422,000	323,000	760,000	830,000
Maryland	333,590	468,073	343,000	226,000	200,000	305,000	380,000	318,000
Ohio	87,000	45,721	199,000	113,000	170,000	128,000	276,000	343,000
New Jersey	125,931	149,900	101,000	125,000				
Delaware	46,900	141,036	110,000	107,000	299,000	192,000	270,000	173,000
Utah								
Oklahoma								
Iowa								
Oregon								
Illinois	280,272	347,788	263,000	343,000	415,000	510,000	737,000	619,000
Kansas								
Pennsylvania								
California (not compiled 1910)								
Minnesota								
Virginia								
Utah					.....	.....	111,000	197,000
All Other States	270,000	19,867	52,000	38,000	138,000	150,000	278,000	271,000
TOTALS	4,574,608	5,885,064	5,577,000	5,028,000	4,347,000	4,532,000	7,307,000	8,770,000

Utah until 1912 and 1913 was included in the list with Oklahoma.

Comparative Packs of California Canned Fruits and Vegetables.

Compiled by the California Fruit Grower.

	1901	1902	1903	1904
Apples	15,972	6,683	5,023	7,185
Apricotos	294,896	236,071	648,716	677,137
Blackberries	21,750	16,661	35,556	17,615
Cherries, Royal Anne	28,178	119,227	103,894	67,084
Cherries, Black	12,136	26,566	30,506	23,946
Cherries, White	11,441	43,419	63,392	42,466
Currants	794	219	95	34
Figs	.....	1,388	1,000	1,385
Gooseberries	1,371	536	.....	127
Grapes	41,364	31,052	52,621	41,178
Loganberries	.....	194	4,307	10
Nectarines	509	755	341	1,081
Pears	458,305	302,962	423,831	572,586
Peaches, Free	559,500	353,036	339,375	401,666
Peaches, Cling	801,788	624,528	559,777	527,622
Plums	137,091	150,447	125,567	143,513
Quinces	749	2,402	115	33
Raspberries	3,555	2,975	6,505	3,581
Strawberries	15,782	6,205	15,320	12,018
Other Fruits	.....	.....	.....	.....
No. 2½ Pie Fruits	31,817	77,889	49,582	29,753
No. 8 Pie Fruits	200,492	203,596	231,496	220,095
Jams and Jellies	39,582	45,979	36,485	49,618
Total Fruits	2,677,072	2,252,790	2,733,504	2,839,733
Tomatoes	748,440	827,052	958,295	566,114
Peas	102,089	57,710	70,487	71,233
Asparagus	187,592	227,126	256,220	224,877
Beans and Other Vegetables	37,937	39,380	58,572	99,559
Total Fruits and Other Vegetables	3,753,130	3,404,058	4,077,078	3,801,516

Pacific Coast Salmon Pack in Cases.

	Columbia River	Sacramento River	Outside Rivers	British Columbia	Alaska	Puget Sound	Totals
1900	313,417	34,000	106,300	527,281	1,534,745	478,742	2,994,485
1901	248,494	17,500	123,326	1,236,156	2,034,895	1,380,590	5,040,961
1902	367,241	14,043	134,190	625,982	2,554,423	563,307	4,259,186
1903	339,366	8,200	64,006	473,547	2,251,085	470,207	3,606,411
1904	423,073	16,698	164,971	465,894	1,953,746	296,272	3,323,654
1905	402,987	2,780	135,699	1,167,460	1,885,464	1,036,295	4,630,685
1906	339,548	4,750	150,756	629,460	2,208,495	441,414	3,774,423
1907	302,481	.....	127,591	547,459	2,170,272	721,666	3,869,469
1908	300,291	.....	105,381	542,689	2,622,427	314,281	3,885,069
1909	295,403	.....	103,604	967,920	2,354,230	1,567,403	5,288,560
1910	389,533	.....	209,919	762,201	2,410,729	540,592	4,312,914
1911	560,871	.....	253,736	948,965	2,819,942	1,557,374	6,140,888
1912	285,666	.....	197,253	996,576	4,064,827	416,125	5,960,447
1913 (estimated)	295,000	.....	135,000	1,354,000	3,610,000	2,373,000	7,767,000

Comparative Packs of California Canned Fruits and Vegetables.

1905	*1906	*1907	*1908	*1909	*1910	*1911	*1912
22,355	80,850	75,100	37,700	69,975	76,830	65,300	80,250
25,710	68,675	76,735	87,550	664,110	743,160	858,325	898,000
624,481	397,350	332,825	1,161,250	49,955	62,025	77,825	102,095
27,513	85,550	97,150	105,700	117,700	136,290	111,440	237,465
11,892	18,700	21,040	40,725	18,075	19,620	28,865	56,820
23,498	38,275	20,985	55,730	56,160	40,285	58,500	57,715
58	.....	.....	138	.....	.....	.....	.....
1,550	10,125	1,110	1,052	.....	.....	.....	.....
10	.....	.....	70	.....	.....	.....	.....
37,480	97,075	128,125	45,545	24,470	45,645	70,915	47,185
.....	45	166	2,400	4,012	12,639	19,117	21,380
826	5,000	87	1,673	14	.....	23	.....
465,166	565,000	533,300	640,550	501,440	619,355	618,920	874,200
792,688	845,250	865,955	975,350	547,175	748,825	738,400	583,800
896,174	659,500	656,850	1,327,610	888,985	1,396,625	1,352,725	1,630,245
53,197	198,550	142,880	239,825	89,245	80,360	165,840	175,200
20	150	632	65	.....	.....	.....	.....
1,632	21,850	6,880	5,950	3,590	10,126	3,625	9,090
4,888	22,280	23,135	5,780	10,580	14,073	7,715	38,470
.....	.....	.....	.....	1,335	3,390	5,115	26,075
35,163	.....	.....	.....	.....	.....	.....	.....
212,868	.....	.....	.....	.....	.....	.....	.....
46,127	.....	.....	.....	.....	.....	.....	.....
3,283,296	3,109,225	2,982,955	4,734,663	3,047,001	4,009,248	4,182,650	4,883,900
834,571	1,205,750	1,539,310	1,106,875	672,260	1,350,310	1,515,450	1,621,100
56,170	125,500	51,565	88,510	104,010	167,775	184,775	269,445
228,439	295,695	174,435	238,420	410,965	617,275	687,065	719,200
73,275	120,650	176,445	68,080	55,485	115,285	129,365	179,770
4,475,751	4,856,820	4,924,710	6,236,548	4,289,721	6,259,893	6,699,305	2,789,495

1912 Salmon Pack.

	Chinook Tyee, King	Sockeye	Medium Red, Cohoe, Red Blueback	Silverside Steelhead	Pink Humpback Chum	Totals
Alaska.....	42,604	.....	1,903,967	170,747	1,947,509	4,064,827
British Columbia.	80,437	444,762	.....	165,309	306,068	996,576
Puget Sound.....	20,252	184,680	.....	149,727	61,466	416,125
Columbia River..	220,317	.....	8,210	38,440	18,699	285,666
Outside Rivers....	53,198	.....	215	105,365	38,475	197,253
Totals	416,808	629,442	1,912,392	629,588	2,372,217	5,960,447

1913 Salmon Pack (Estimated).

	Chinook Tyee, King	Sockeye	Medium Red, Cohoe, Red Blueback	Silverside Steelhead	Pink Humpback Chum	Totals
Alaska.....	40,000	.....	1,940,000	80,000	1,550,000	3,610,000
British Columbia.	41,000	972,000	.....	70,000	271,000	1,354,000
Puget Sound.....	18,000	1,480,000	.....	75,000	800,000	2,373,000
Columbia River...	240,000	.....	.....	35,000	20,000	295,000
Outside Rivers...	40,000	.....	.....	70,000	25,000	135,000
Totals	379,000	2,452,000	1,940,000	330,000	2,666,000	7,767,000

CANNERS' ASSOCIATIONS.

	Headquarters. Sec'ys. Office.
National Canners' Association	Washington, D. C.
Western Canners' Association	Edinburg, Indiana
Illinois Canners' Association	Eureka, Illinois
Southern Canners Association	Whiteville, Tenn.
Indiana Canners' Association	Arcadia, Indiana
Ohio Canners' Association	Elyria, Ohio
Tri-State Packers' Association	Princess Anne, Md.
Canners' League of California	San Francisco, California
New York State Canned Goods Packers' Association	Utica, N. Y.
Iowa Canners' Association	Dexter, Iowa
Minnesota Canners' Association	Big Stone, South Dakota
Missouri Valley Canners' Association	Oregon, Missouri
Wisconsin Canners' Association	Sheboygan, Wis.
Michigan Canners' Association	Fremont, Mich.
Virginia Canners' Association	Troutville, Va.
Utah Canners' Association	Ogden, Utah
Canning Machinery and Supplies Association	Cadiz, Ohio
National Canned Food and Dried Fruit Broker's Association	Chicago, Ill. (Hearst Building)
National Kraut Packers' Association	Clyde, Ohio
Baltimore Canned Goods Exchange	Baltimore, Md.
Puget Sound Salmon Canners' Association	Seattle, Wash.

COMPARATIVE AVERAGE OPENING PRICES ON CALIFORNIA CANNED FRUITS AND ASPARAGUS.

Compiled by the J. K. Armsby Company.

Apricots.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.25	2.25	2.10	2.10	2.25	2.00	2.50	3.00	2.15	2.15	2.00	2.50	2.25
No. 2½.													
Dbl. Ex.	....	....	....	....	....	1.85	2.15	2.50	2.00	1.60	1.75	2.25	1.90
Extra	1.50	1.50	1.40	1.50	1.50	1.35	1.80	2.30	1.50	1.50	1.50	1.90	1.60
Ex. Stand.	1.25	1.25	1.10	1.20	1.25	1.15	1.55	2.15	1.25	1.20	1.25	1.65	1.30
Standard	1.15	1.15	1.00	1.10	1.15	1.00	1.45	1.85	1.10	1.05	1.10	1.55	1.20
Second	1.05	1.00	.90	1.00	1.05	.90	1.30	1.70	1.00	.95	1.00	1.35	1.05
Water	.95	.90	.80	.90	.95	.80	1.20	1.55	.90	.90	.95	1.25	1.00
Pie	....	....	....	.85	....	....	1.10	1.50	.85	.80	.85	1.10	.90
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	5.50	6.00	7.00	5.00	6.00	5.25	6.50	5.50
Ex. No. 2½ Gr.	....	....	....	4.25	....	4.00	5.50	6.25	4.50	4.25	4.50	5.75	5.00
Ex. Stand	....	....	....	3.50	....	3.50	4.75	5.75	4.00	3.50	3.75	5.00	4.00
Standard	....	....	....	3.25	....	3.25	4.25	5.25	3.50	3.00	3.25	4.75	3.50
Water	....	....	....	....	....	2.50	3.50	5.00	2.75	2.60	2.75	4.25	2.75
Pie	2.25	2.25	2.35	2.35	2.25	2.00	3.25	4.75	2.40	2.40	2.50	3.75	2.60

Cherries.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.85	2.85	2.75	2.75	2.70	3.00	3.00	4.25	2.75	2.25	2.50	2.85	2.75
No. 2½.													
Dbl. Ex.	....	....	....	....	....	2.75	2.75	3.50	2.50	1.90	2.15	2.50	2.50
Extra	2.00	2.15	2.25	2.15	2.10	2.35	2.50	3.25	2.25	1.75	2.00	2.25	2.25
Ex. Stand.	1.85	1.90	1.90	1.90	1.80	2.15	2.20	2.85	2.00	1.50	1.65	2.00	2.00
Standard	1.50	1.80	1.75	1.70	1.65	1.75	1.85	2.50	1.75	1.25	1.45	1.75	1.70
Second	1.40	1.60	1.50	1.40	1.35	1.50	1.65	2.25	1.50	1.15	1.25	1.50	1.50
Water	1.30	....	1.25	1.20	1.20	1.35	1.50	2.00	1.40	1.10	1.20	1.40	1.30
Pie	....	....	....	....	....	....	1.40	1.75	....	1.05	1.15	1.30	1.30
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	8.50	8.00	1050	8.00	6.00	7.00	7.50	7.50
Ex. No. 2½ Gr.	....	....	....	7.00	....	7.00	7.00	9.50	7.00	5.50	6.25	7.00	7.00
Ex. Stand.	....	....	....	6.00	....	6.00	6.50	8.50	6.00	4.50	5.50	6.00	6.00
Standard	....	....	....	5.25	....	5.00	5.50	7.50	5.50	4.00	5.00	5.50	5.50
Water	....	....	....	....	....	4.00	4.25	....	....	3.50	3.75	4.25	4.25
Pie	3.00	4.50	3.50	3.75	3.50	3.50	3.75	4.50	3.50	3.00	3.50	3.75	3.75

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Yellow Free Peaches.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.35	2.25	2.25	2.25	2.40	2.30	2.30	2.50	2.25	2.15	2.00	2.35	2.25
No. 2½.													
Dbl. Ex.	....	....	....	....	....	2.10	2.10	2.25	2.10	1.75	1.85	2.15	1.85
Extra	1.65	1.65	1.55	1.60	1.75	1.60	1.70	2.00	1.65	1.45	1.60	1.80	1.60
Ex. Stand.	1.35	1.40	1.30	1.30	1.35	1.35	1.50	1.85	1.45	1.25	1.30	1.50	1.35
Standard	1.25	1.30	1.20	1.15	1.25	1.25	1.35	1.65	1.30	1.10	1.20	1.35	1.25
Second	1.15	1.20	1.10	1.05	1.15	1.10	1.25	1.45	1.20	1.00	1.05	1.20	1.10
Water	1.05	1.05	1.00	.95	1.05	1.00	1.15	1.35	1.10	.90	1.00	1.10	1.05
Pie	....	....	....	.90	....	.95	1.10	1.25	1.00	.85	.85	1.00	1.00
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	6.50	7.00	....	5.75	5.25	5.50	6.00	5.75
Ex. No. 2½ Gr.	....	....	....	5.25	....	5.00	5.50	5.75	4.75	4.50	4.75	5.30	5.00
Ex. Stand.	....	....	....	4.25	....	4.25	4.75	5.00	4.25	3.60	4.00	4.75	4.25
Standard	....	....	....	3.90	....	4.00	4.50	4.75	3.75	3.25	3.50	4.25	3.75
Water	....	....	....	....	....	3.00	3.50	4.00	3.00	2.65	2.75	3.40	3.00
Pie	2.50	2.75	2.50	2.40	2.50	2.50	3.00	3.75	2.75	2.40	2.60	3.25	2.75

Lemon Cling Peaches.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.40	2.40	2.40	2.40	2.50	2.50	2.50	3.00	2.50	2.30	2.25	2.50	2.35
No. 2½.													
Dbl. Ex.	....	....	....	....	....	2.25	2.40	2.65	2.25	1.80	2.00	2.25	2.00
Extra	1.75	1.75	1.70	1.75	2.00	1.80	2.00	2.50	1.85	7.60	1.60	1.90	1.70
Ex. Stand.	1.40	1.50	1.40	1.45	1.75	1.55	1.80	2.15	1.60	1.35	1.35	1.60	1.40
Standard	1.30	1.40	1.25	1.20	1.50	1.40	1.55	1.85	1.45	1.20	1.20	1.45	1.30
Second	1.20	1.30	1.15	1.10	1.35	1.25	1.40	1.70	1.30	1.05	1.10	1.35	1.20
Water	1.10	1.15	1.05	1.00	1.15	1.10	1.20	1.55	1.20	.95	1.00	1.20	1.10
Pie	....	....	....	.85	....	1.00	1.15	1.40	1.10	.90	.85	1.05	1.05
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	7.50	7.50	8.00	6.50	5.50	5.50	6.25	6.00
Ex. No. 2½ Gr.	....	....	....	5.50	....	5.50	6.50	7.00	5.75	4.75	4.75	5.50	5.25
Ex. Stand.	....	....	....	4.75	....	4.75	6.00	6.50	5.00	4.25	4.00	5.00	4.50
Standard	....	....	....	4.25	....	4.25	5.00	5.75	4.50	3.35	3.50	4.50	4.00
Water	....	....	....	....	....	3.50	4.00	4.75	3.50	2.75	2.85	3.40	3.10
Pie	....	....	2.60	2.50	2.75	2.60	3.25	4.00	3.15	2.50	2.65	3.25	2.85

Bartlett Pears.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.40	2.40	2.30	2.45	2.50	2.50	2.30	3.00	2.50	2.30	2.50	2.75	2.40
No. 2½.													
Dbl. Ex.	....	....	....	....	....	2.35	2.20	2.50	2.25	2.00	2.25	2.40	2.15
Extra	1.75	1.75	1.60	1.80	1.90	2.00	1.90	2.35	1.85	1.75	1.85	2.15	1.85
Ex. Stand.	1.40	1.50	1.35	1.50	1.60	1.85	1.70	2.10	1.60	1.40	1.70	1.90	1.60
Standard	1.30	1.40	1.25	1.30	1.40	1.65	1.45	1.80	1.45	1.30	1.45	1.75	1.45
Second	1.20	1.25	1.10	1.15	1.25	1.50	1.25	1.60	1.25	1.20	1.25	1.45	1.30
Water	1.10	1.15	1.00	1.00	1.10	1.25	1.10	1.40	1.15	1.10	1.15	1.25	1.15
Pie	....	....	....	.85	....	.95	.95	1.25	1.05	.90	1.00	1.10	1.10
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	7.50	6.75	8.00	6.50	5.75	6.25	7.50	6.25
Ex. No. 2½ Gr.	....	....	....	5.25	....	6.00	5.75	7.25	5.50	5.00	5.50	6.75	5.75
Ex. Stand.	....	....	....	4.75	....	5.50	5.00	6.50	4.75	4.25	4.75	6.00	5.00
Standard	....	....	....	4.25	....	4.75	4.50	5.50	4.25	3.75	4.25	5.50	4.75
Water	....	....	....	....	....	3.50	3.00	4.25	3.25	3.00	3.25	4.25	3.50
Pie	2.50	....	....	2.25	2.25	2.25	2.50	3.75	2.75	2.60	2.75	3.25	2.75

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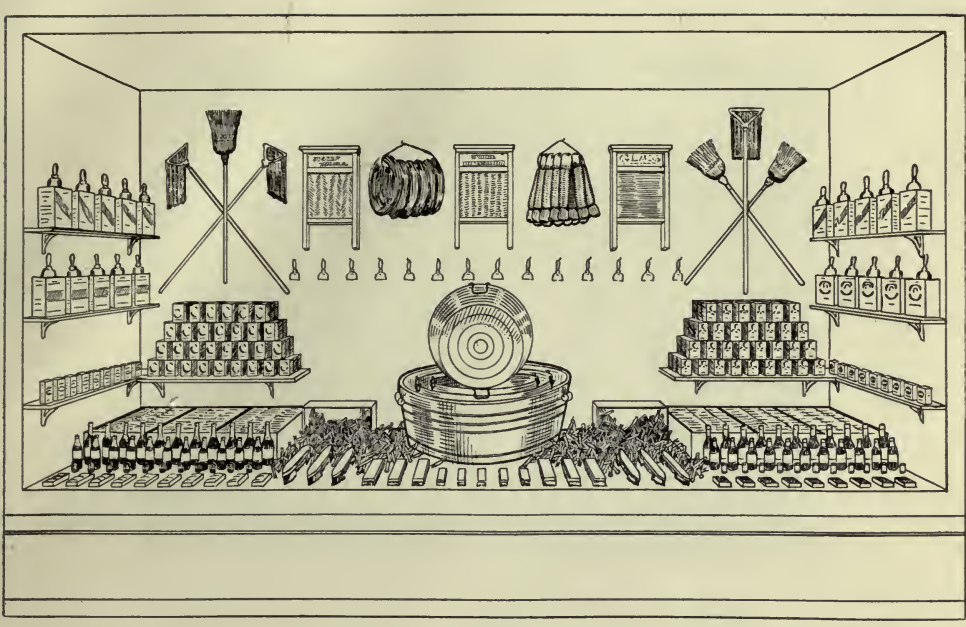

A NOVEL WINDOW AND NEAT INSIDE

PACKING MEAT IN THE BIG CHICAGO KITCHEN OF
LIBBY, McNEILL & LIBBY

Plums.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.15	1.85	1.75	1.85	1.85	2.00	2.00	2.15	2.00	2.00	2.00	2.00	2.00
No. 2½.													
Dbl. Ex.	....	....	....	....	....	1.65	1.60	1.75	1.75	1.50	1.60	1.75	1.75
Extra	1.35	1.25	1.25	1.35	1.35	1.25	1.30	1.50	1.50	1.30	1.30	1.50	1.50
Ex. Stand.	1.15	1.10	1.00	1.15	1.10	1.05	1.10	1.35	1.30	1.05	1.15	1.25	1.20
Standard	1.05	1.10	.90	1.05	1.00	.95	1.00	1.20	1.15	.90	1.00	1.15	1.10
Second	.95	.90	.80	.95	.90	.85	.95	1.10	1.05	.80	.90	1.05	1.00
Water	.90	.85	.70	.90	.85	.80	.85	1.05	1.00	.75	.85	1.00	.95
Pie	....	....	....	.85	....	.70	....	1.00	.90	.70	.75	.85	.90
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	5.50	5.50	5.75	5.25	4.50	4.50	5.00	5.00
Ex. No. 2½ Gr.	....	....	....	4.00	....	3.75	4.00	4.25	4.00	3.75	3.75	4.25	4.25
Ex. Stand.	....	....	....	3.25	....	3.25	3.50	3.75	3.75	3.00	3.25	3.75	3.75
Standard	....	....	....	3.00	....	3.00	3.25	3.50	3.50	2.50	2.75	3.25	3.25
Water	....	....	....	....	....	2.25	2.35	3.00	3.00	2.00	2.25	2.50	2.50
Pie	2.20	2.00	2.00	2.15	2.15	2.05	2.15	2.50	2.50	1.90	1.90	2.25	2.25

Grapes.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
No. 3.													
Extra	$2.15	2.00	1.85	1.85	1.75	2.00	2.00	2.15	2.00	2.00	2.00	2.00	2.00
No. 2½.													
Dbl. Ex.	....	....	....	....	....	1.65	1.60	1.75	1.65	1.50	1.50	1.60	1.60
Extra	1.35	1.35	1.35	1.35	1.25	1.25	1.30	1.50	1.50	1.40	1.40	1.50	1.50
Ex. Stand.	1.15	1.15	1.05	1.20	1.10	1.05	1.10	1.35	1.25	1.10	1.10	1.25	1.20
Standard	1.05	1.05	.95	1.10	1.00	.95	1.10	1.20	1.15	1.00	1.00	1.15	1.10
Second	.95	.95	.85	1.00	.90	.85	.95	1.10	1.05	.90	.90	1.05	1.00
Water	....	.90	.80	.90	.85	.80	.85	1.05	1.00	.85	.85	1.00	.95
Pie	....	....	....	....	....	.80	....	1.00	.90	.80	.80	.90	.90
No. 8.													
Ex. No. 3 Gr.	....	....	....	....	....	5.50	5.50	5.75	5.00	4.75	4.75	5.00	5.00
Ex. No. 2½ Gr.	....	....	....	4.50	....	3.75	4.00	4.25	4.00	4.00	4.00	4.00	4.00
Ex. Stand.	....	....	....	3.25	....	3.25	3.50	3.75	3.75	3.25	3.25	3.50	3.50
Standard	....	....	....	3.00	....	3.00	3.25	3.50	3.50	3.00	3.00	3.25	3.25
Water	....	....	....	....	....	2.25	2.35	3.00	3.00	2.25	2.25	2.50	2.50
Pie	2.25	2.15	2.15	2.15	2.10	2.05	2.15	2.50	2.50	2.00	2.00	2.25	2.25

Asparagus.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Mammoth White, Pld.	$3.75	4.00	4.25	4.50	5.50	4.85	3.55	3.40	2.75	2.85
Mammoth White	3.00	3.00	3.25	3.35	4.35	4.15	2.80	2.65	2.30	2.35
Mammoth Green, Pld.	3.50	3.85	3.85	3.85	4.65	4.00	3.20	3.00	2.35	2.50
Mammoth Green	2.75	3.15	3.00	3.00	3.65	3.25	2.45	2.25	2.00	2.00
Large White, Pld.	3.50	3.50	3.50	3.75	4.75	4.25	3.25	3.10	2.40	2.65
Large White	2.75	2.50	2.65	2.75	3.85	3.50	2.50	2.45	2.00	2.15
Large Green, Pld.	3.00	3.25	3.25	3.25	4.00	3.75	3.00	2.75	2.20	2.40
Large Green	2.50	2.35	2.50	2.50	3.40	2.85	2.25	2.15	1.80	1.90
Medium White	2.50	2.25	2.35	2.35	3.50	3.25	2.25	2.35	1.75	1.95
Medium Green	2.25	2.15	2.15	2.15	3.25	2.65	2.15	2.05	1.60	1.75
Small White	2.25	2.15	2.15	2.55	3.35	3.00	2.15	2.25	1.60	1.70
Small Green	2.10	2.05	2.05	2.05	3.15	2.50	2.00	2.00	1.50	1.65
No. 1 Sq. White Tips	2.50	2.30	2.35	2.40	3.50	3.25	2.35	2.30	1.90	2.00
No. 1 Sq. Green Tips	2.15	2.20	2.20	2.25	3.35	2.50	1.90	1.85	1.55	1.70
No. 1 Tall Ungraded	....	....	....	....	1.75	1.50	1.15	1.00	.85	.95

Continued on next page.

Approximate Comparative Packs of Hawaiian Canned Pineapple.

1901	2,000 Cases	1907	186,700 Cases
1902	6,000 Cases	1908	410,000 Cases
1903	9,800 Cases	1909	498,300 Cases
1904	25,500 Cases	1910	625,000 Cases
1905	51,300 Cases	1911	751,000 Cases
1906	84,300 Cases	1912	1,120,000 Cases

Approximate Comparative Average Opening Prices on Hawaiian Canned Pineapple.

Sliced.

	1908	1909	1910	1911	1912
No. 2½ Extra	$2.00	$1.75	$1.75	$1.85	$2.00
No. 2 Squat Extra	....	1.60	1.50	1.55	1.65
No. 2 Flat Extra	....	1.55	1.45	1.50	....
No. 2 Tall Extra	1.80	1.45	1.40	1.40	1.50
No. 1¼ Flat Extra	....	1.40	1.25	....	....
No. 1 Flat Extra	....	1.00	1.00	1.00	1.00
No. 8 Extra	....	5.50	5.50	5.75	6.00
No. 8 Extra (in Juice)	....	5.00	....	....	....
No. 2½ Standard	1.75	1.50	1.50	1.60	1.75
No. 2 Tall Standard	1.60	1.25	1.10	1.25	1.35
No. 2 Flat Standard	....	1.30	....	....	....
No. 1 Flat Standard	....	.90	.90	....	.95
No. 8 Standard	....	5.00	5.00	5.00	5.25
No. 8 Standard (in Juice)	....	4.50	....	....	....

Grated and Crushed.

	1908	1909	1910	1911	1912
No. 2½ Extra	$1.85	$1.50	$1.65	$1.65	$1.75
No. 2 Squat Extra	....	....	1.40	1.40	1.55
No. 2 Flat Extra	....	1.45	1.35	1.37½	....
No. 2 Tall Extra	1.60	1.35	1.35	1.35	1.45
No. 2 Tall Extra (in Juice)	....	1.30	1.30	1.25	....
No. 1 Flat Extra	....	.90	.90	.90	.95
No. 8 Extra	6.25	5.00	5.00	5.50	5.75
No. 8 Extra (in Juice)	5.50	4.25	4.25	4.50	4.75
No. 2½ Standard	....	....	1.35	1.50	1.60
No. 2 Tall Standard	1.35	1.25	1.10	1.15	1.30
No. 1 Flat Standard	....	.85	.85	....	.90
No. 8 Standard	5.75	4.75	4.75	5.00	5.25
No. 8 Standard (in Juice)	5.00	4.00	4.00	4.25	4.50

RANGE OF PRICES FROM 1883 TO 1914 F. O. B. Baltimore, Md.

Compiled by "The Canning Trade."

The following table gives the packer's prices of spot Tomatoes, Corn, Peas, per dozen, and No. 3 Cans, per thousand, from 1883 to January 1st, 1914. No. 2 standard Maine Style Corn is referred to; No. 2 standard Early June Peas; No. 3 standard Tomatoes. Cans are the regular size and standard quality.

*—Star indicates record high price.

Date.	Tomatoes.	Corn.	Peas.	Cans.
1883 January 1.....	$1.05	$ .90	$1.15	$32.50
1883 July 1.....	.95	.85	1.15	32.00
1884 January 1.....	.90	.95	1.40	32.50
1884 July 1.....	.90	.90	2.00*	28.00
1885 January 1.....	.90	1.10	1.80	28.00
1885 July 1.....	.90	1.10	1.50	26.00
1886 January 1.....	1.00	.90	1.60	28.00
1886 July 1.....	1.00	.90	1.35	28.00
1887 January 1.....	.90	.90	1.20	28.00
1887 July 1.....	1.25	1.25*	1.25	26.50
1888 January 1.....	1.00	1.00	1.25	30.00
1888 July 1.....	1.00	.80	1.50	28.50
1889 January 1.....	.80	.60	1.40	25.50
1889 July 1.....	.75	.60	1.30	24.00
1890 January 1.....	.75	.62	1.30	25.00
1890 July 1.....	.77½	.65	1.40	26.50
1891 January 1.....	.85	1.00	1.35	30.00
1891 July 1.....	.87½	.90	1.25	32.00
1892 January 1.....	.90	1.00	1.25	28.50
1892 July 1.....	.85	1.15	1.10	28.50
1893 January 1.....	1.10	1.00	1.20	26.00
1893 July 1.....	1.30	.90	1.25	27.00
1894 January 1.....	1.00	.70	1.20	26.00
1894 July 1.....	.90	.60	1.15	26.00
1895 January 1.....	.75	.60	1.00	21.00
1895 July 1.....	.65	.60	1.00	21.00
1896 January 1.....	.75	.55	1.00	21.00
1896 July 1.....	.65	.55	.90	18.50
1897 January 1.....	.75	.60	.90	20.00
1897 July 1.....	.65	.60	.75	20.00
1898 January 1.....	.95	.70	.75	20.00
1898 July 1.....	1.10	.70	.75	18.00
1899 January 1.....	.70	.65	.75	17.00
1899 July 1.....	.70	.75	1.10	22.50
1900 January 1.....	.67½	.75	1.20	25.00
1900 July 1.....	.72½	.70	1.10	27.00
1901 January 1.....	.80	.70	1.10	26.70

1901	July 1.....	.72½	.65	1.00	.....
1902	January 1.....	1.22½	.75	1.00	20.00
1902	July 1.....	1.60*	.60	.95	20.00
1903	January 1.....	.95	.80	.90	21.50
1903	July 1.....	.77½	1.00	.90	21.50
1904	January 1.....	.70	1.05	.90	18.50
1904	July 1.....	.70	.75	.85	18.50
1905	January 1.....	.67½	.80	.85	16.50
1905	July 1.....	.67½	.70	.75	16.50
1906	January 1.....	1.15	.70	.75	16.50
1906	July 1.....	1.00	.56	.95	16.25
1907	January 1.....	.97½	.56	1.10	17.50
1907	July 1.....	.97½	.65	1.10	18.00
1908	January 1.....	.82½	.80	1.10	18.00
1908	July 1.....	.77½	.57½	.85	18.40
1909	January 1.....	.72½	.70	.85	18.40
1909	July 1.....	.67½	.60	.75	17.00
1910	January 1.....	.65	.75	.75	15.50
1910	July 1.....	.70	.82	.75	15.50
1911	January 1.....	.80	.80	.90	16.75
1911	July 1.....	.90	.90	.97	16.75
1912	January 1.....	1.20	.70	1.25	16.25
1912	July 1.....	1.25	.65	1.20	16.25
1913	January 1.....	.85	.55	1.20	17.25
1913	July 1.....	.85	.55	1.05	17.25
1914	January 1.....	.75	.72½	.95	17.25

CALIFORNIA CANNING SEASON

Approximate Period of Packing the Different Varieties

FRUITS.

Apricots.....Latter part of June to latter part of August
Blackberries.....Latter part of June to fore part of September
Cherries.....Latter part of May to middle of July
Currants..... Last three weeks of June
Gooseberries.....Latter part of May to latter part of June
Grapes..... Fore part of July to fore part of September
Nectarines.....Latter part of July to latter part of September
Pears..... Latter part of July to middle of October
Peaches, Free.....Latter part of July to middle of October
Peaches, L. C...... Middle of August to middle of October
Peaches, W. C...... Middle of July to middle of September
Plums, Green Gage...Middle of July to middle of September
Plums, Egg..... Fore part of August to fore part of September

Plums, Golden Drop...Latter part of August to latter part of October
Plums, Damson .....Middle of September to middle of November
Quinces.....Fore part of May to latter part of October
Strawberries.....Latter part of March to middle of June

VEGETABLES.

Asparagus.....Middle of June to end of November
String Beans..... Middle of May to latter part of June
Peas.....Latter part of August to latter part of Novemb
Tomatoes..... Latter part of August to latter part of Nov'ber

CANNED FOODS NET WEIGHTS.

These are minimum weights of contents, including juice and water, suggested as proper to be printed upon labels to comply with various State laws.

	No.	Lbs.	Ozs.
Apples, 4⅞-inch	3	1	13
5½-inch	3	2	3
	10	5	14
Asparagus, Tall Salmon Cans	1	0	15
Tips, Square Cans	1	0	15
	1½	1	2
	2½	1	14
Round Cans	3	2	1
Square Cans	3	2	8
Bacon, Glass	Large	0	8
	Med.	0	4
Beets	2	1	4
	3	2	1
	10	6	9
Blackberries, H. S.	2	1	5
	Water	1	3
H. S.	2½		
	10	6	9
Blueberries	2	1	4
	2½		
	10	6	9
California Fruits, Extra	3	2	4
Extra	2½	1	15
Extra Standard	2½	1	14
Standard	2½	1	14
Second	2½	1	13

Continued on next page.

Canned Foods Net Weights—Continued.

	No.	Lbs.	Ozs.
California Fruits, Water	2½	1	13
Pie	2½	1	13
	8	6	10
California Tomatoes	3	2	3
Solid Pack	2½	1	14
Standard	2½	1	12
	8	6	4
Cherries, Ptd. H. S.	2	1	6
	Water.	1	3
H. S.	2½	1	15
H. S.	3		
	10	6	9
Clam Chowder	3	2	1
Corn	1	0	10
	2	1	4
	10	6	9
Hominy, 4⅞ inches	3	2	1
5½ inches	3	2	5
	10	6	9
Kraut	3	1	14
5½ inches	3	2	4
	10	6	4
Lima Beans, Dry White	2	1	4
	10	6	4
Lima Beans, Green	1	0	11
	2½	0	13
	2	1	4
	10	6	9
Lobster, Flat Cans	¼	0	3
	1	0	14
Tall Cans	¾	0	10
	1	0	14
Milk, Condensed	1	0	13½
Evaporated	Tall	1	0
	Family	0	12
	Baby	0	6
Okra	1	0	9
	2	1	3
	3	1	14
	10	5	14

Continued on next page.

Canned Foods Net Weights—Continued.

	No.	Lbs.	Ozs.
Peaches, H. S.	3	2	3
H. S.	10	6	9
Pears, H. S.	2	1	2
	Water	1	2
H. S.	2½	1	14
H. S.	3	2	0
H. S.	10	6	14
Peas	1	0	11
	1½	0	14
	2	1	4
	10	6	9
Pineapple	1	0	9
	2	1	3
	2½	1	12
	10	6	4
Plums, H. S.	2	1	4
H. S.	2½	1	14
H. S.	3	2	2
H. S.	10		
Pork and Beans	1	0	11
	2	1	5
	3	2	2
	10	7	0
Raspberries, Black H. S.	2	1	5
	Water	1	3
Raspberries, Red H. S.	2	1	5
	Water.	1	3
H. S.	2½		
	10	6	9
Red Kidney Beans	1	0	11
	2	1	4
	3	2	3
	10	6	14
Salmon, Flat Cans	½	0	7½
	1	0	15
Oval Cans	½	0	7½
	1	0	15
Tall Cans	1	0	15
Nominal	2		

Continued on next page.

Canned Foods Net Weights—Continued.

	No.	Lbs.	Ozs.
Shrimp, Dry	1	0	4
	1½	0	8½
Wet	1	0	4
	1½	0	8½
Spinach, 4⅞ inches	3	2	0
5½ inches	3	2	4
	10	6	0
	2	1	2
Squash and Pumpkin	2	1	4
4⅞ inches	3	2	0
5½ inches	3	2	5
	10	6	9
Strawberries, H. S.	2	1	5
	Water	1	3
H. S.	2½		
	10	6	3
String Beans, Wax and Refugee	1	0	11
	1½	0	14
	2	1	4
	10	6	9
Succotash, Lima Bean	2	1	4
	10	6	9
Sweet Potatoes	3	2	1
	10		
Tomatoes	2	1	3
4⅞ inches	3	2	0
5 inches	3	2	2
5½ inches	3	2	6
	10	6	9
Tongue, Lunch	1	0	12
Ox	2	1	12
		(or 1 tongue)	
Tuna Fish, Flat Cans	½	0	7
	1	0	13

CHAPTER LVI.

SALESROOM—COUNTER AND WINDOW DISPLAY OF CANNED FOODS.

No part of a wholesale or retail grocer's stock is possessed of such possibilities for advertising and display as Canned Foods. In the salesroom of the wholesale store they can be beautifully and artistically arranged if desired. The price can also be marked so that the attention of visiting merchants will be attracted.

A very good way is to display special bargains or special brands in the original cases, piled on the side, with cans set on end and faced outward.

Another stack or pile can be backed up to the first and faced the other way, thereby saving space.

A wholesale grocer's salesroom should have upright glass cases with lifting or sliding doors. Samples of canned foods should be kept in these cases, which should either be equipped with mirror glass in the back or be double, having standing space on each side of the case and glass doors on each end, so that one can see entirely through the case. Cans of canned foods may also be displayed with vignettes in front and on both sides of the case. This saves room, but, unless the salesroom is large, will obstruct the view and the light. Such cases should not be more than seven feet tall and the shelving should be of glass strips.

A wholesale buyer should have his cutting table made of very thick plate glass or of a white enameled iron or imitation marble composition. The latter is better and handsomer than the common veined marble. It is also cleaner. This cutting table should be in proximity to the sample cases, as many a sale is made by a buyer, who also has the time and inclination to wait on important customers, using samples on the cutting table.

Every good cutting table should be equipped with shallow tin pans, enameled white on the inside. They show stuff better than dishes, are not heavy, make but litte noise, and won't break.

The great variety of colors and artistic designs on can labels beautify a store, retail or wholesale, more than any other goods a grocer carries; and the line is susceptible of such an infinite variety in arrangement that it is put to the front on the shelves and counters especially in the best retail stores.

A retail grocer should always have good, wide, deep windows, with full length plate glass in the front. His window display is just as important and profitable to him as are those of the general stores to them; and canned foods, when arranged in the windows, or on the counters in pyramids, or on the shelves, beautify the place and attract

the attention of buyers. Price cards and cards describing the quality are of course interesting. It is difficult to describe a window or counter display in words so as to be understood, and, as pictures are always interesting to the eye, I have concluded that it is best to show photographs of displays actually made by grocers. From these ideas of the possibilities of such arrangements can be had.

CHAPTER LVII.

WHOM DOES THE BROKER REPRESENT?

Part of an address made by the author to the Indiana Canners' Association meeting at Indianapolis, November 13, 1913.

Some time ago, at a banquet, I had occasion to define a broker's earthly mission and status, and I have come to the conclusion, after studying all the encyclopedias, the Bible, and books of familiar quotations, and after having taken legal advice in relation to whom brokers actually represent, that my definition formulated on that occasion is the best ever. I said that:

"The mission of the broker is to stand immovably and immaculately, like a great rock of truth and righteousness, between the seller and the buyer in a ceaseless effort to prevent them from 'doing' each other."

That definition of a broker's duty is about the best I have been able to find, even with the assistance of the Canners' Bureau of Research at Washington, D. C.

Seriously speaking, however, Mr. President, I have come to the conclusion that the canned foods broker is higher and greater legally than the law and better morally than the church.

I have looked through stacks of law books, since President Smith "wished" this subject on me, and though I could find hundreds of cases and decisions pertaining to stock and bond brokers, insurance brokers and real estate brokers and their trouble, I assure you that I was not able to find a single case wherein a canned food or merchandise broker had figured either as plaintiff or defendant, not even in a breach of promise or divorce case. They seem either to have no troubles or wisely to settle them out of court.

I have also looked carefully through the Bible and the Catechism and the Book of Common Prayer, and have failed to find a single denunciation of the canned foods broker or his deeds or methods, nor have I found that any one has ever offered up a prayer in his behalf.

The inference to be clearly drawn is that his methods are above reproach, his morals above criticism, and that prayers in his behalf are unnecessary.

Under the weight of all this testimony, an appropriate prayer for a broker to utter should he get into trouble would be similar to that of the irreligious sea captain, whose ship was about to be wrecked in a great storm. He prayed: "Lord, you know that I have never troubled you before, and if you will get me out of this scrape, I promise never to call on you again."

I do not intend, Mr. President, to assert that the canned foods broker is like Daniel, with a halo above his head and a heavenly smile upon his face, standing in the midst of conscienceless canners and wholesale grocers all waiting to pounce upon him. Nor do I suggest that all brokers will in the great hereafter be asked to come forward and get a harp and put on a golden crown.

I am afraid that many of them would feel like a boy I heard about. A new Sunday School superintendent was making his introductory address and said:

"All the little children who want to go to Heaven and wear a golden crown will please stand up."

They all stood up but the son of a canner, or maybe his father was a wholesale grocer, and his name was Bill, and he sat tight.

"Now all will please be seated. Willie, you did not stand. Don't you want to wear a golden crown?" Bill then said: "Nixy, not fur me. De dentist put one of dem tings on me toof last week. Not fur Willie. Never again!"

To be serious, however, Mr. President, the broker legally represents the party to the transaction who employs him and pays him his brokerage.

There is, I know, a general or popular impression that he acts legally as the agent of both parties, but the law does not so hold.

It plainly and undeniably states that he "represents and is the agent of the seller or buyer who employs him and pays him his brokerage."

You must not think that the canners are the only people who pay brokerages on canned foods. Wholesale grocers sell a great many canned foods to each other through brokers, and there are in the larger cities brokers who devote nearly all their time to selling canned foods between wholesalers.

When canned foods have gone into second hands brokers must sell for wholesalers.

Although the broker is legally the agent and representative of the party who employs him and pays him, I hold, and I think that all well-informed and thoughtful brokers, canners and wholesalers will

admit, that a broker who does not stand impartially, honestly and fairly between the buyer and seller, will not be of any use to either party very long.

If a broker represents you he is of no use to you unless he can sell your goods. If he is merely a salesman or advocate for the seller, he cannot hold the respect or confidence of the buyer, and if he loses those, he is no longer of any use to the seller.

You employ a broker on the basis of no sales, no brokerage, and only pay him for what he actually does. When you have nothing to sell, he is not on your payroll. Consequently he is the cheapest selling agency you can employ.

I hold though the law says that the broker is the agent of the party who employs him and pays him his brokerage, that there are relations that the law does not properly consider and some things which lawyers, who are usually not practical, do not know. I hold that ethically and in conformity with the principles of scientific political economy, brokerage is a part of the cost of the goods, just as would be a salesman's salary, or freight, or labels, or cases, and that neither the canner, the wholesaler, or the retail dealer pays the brokerage, but that it is paid by the consumer who finally uses the goods, as a part of the purchase price, and that a broker really represents the just interests of all parties to the transaction, as well as the best interests of the canning industry.

It is a broker's business to bring buyers and sellers together upon agreed terms and to have them sign written contracts of purchase and sale, or accept his sales contract as the terms of the transaction.

His duty is then done, and his brokerage is legally due and payable, though custom in the canned foods line seems to have established the rule that brokerage is not payable until after the goods are shipped and paid for.

In cases of rejection there is no legal obligation on the broker's part to intervene or to try to satisfy the buyer, for the seller's duty is to deliver the goods according to contract and the buyer's duty is to accept and pay for them. If either fails or refuses to comply with the contract, **through no fault of the broker,** his brokerage is, nevertheless, payable. Here, however, custom seems to have assumed that, where there is a rejection, no brokerage shall be paid. There is no law to sustain that assumption, but every broker should do his utmost to reconcile differences between parties or to resell the goods.

CHAPTER LVIII.

THE RELATIONS OF CANNER TO BROKER AND JOBBER.

Part of an address made by the author to the Wisconsin Pea Canners' Association at Milwaukee, December 4, 1913.

Mr. President and Gentlemen: I am very glad indeed that your president did not ask me to include the retailers in my analysis of existing relations, because I would certainly have found myself walking upon a crust over a volcano.

The retail grocer is the court of last resort in food distribution—the guide, philosopher and friend of the public appetite, and standing, as he does, nearest to the eventual consumer, his is the final word.

His friendship and co-operation are more vital and essential to the canner than any other link in the chain of distribution; but I will shake his hand and pass him by with my assurance of sincere respect and appreciation, because there are too many and too much of him, and I could not do him justice in as short an address as I propose to make.

Lawyers claim that law is the crystallization of human justice and reason, and that it defines all the relations of life and property. There is, however, nothing in all the law books, or great overburdened libraries of the law, that defines the line of distinction or demarcation between the rights and duties of manufacturers, brokers and jobbers. There is nothing in the law which says where the rights and privileges of either of those classes begin or end or how far their field of effort shall or shall not extend.

In truth, the law, as it is interpreted or adminstered in these modern days, is antagonistic to organized or systematized distribution, and to the scientific economies of distributive effort. It recognizes no right, for instance, on the part of canners, brokers, or jobbers to organize or co-operate in order to define the boundaries of the field of effort each shall occupy, or to agree to confine their co-operation or patronage to those who do business along the lines of true ethical relationship, or, to speak plainly, who keep within their proper sphere and mind their own business.

If two or more wholesale grocers were to agree not to buy goods through a broker who sold to the retail trade, they could be prosecuted and punished under the anti-trust laws.

If two or more canners were to agree to sell no goods to a jobber who conducted a cannery, or who put his private or house label on canned foods, they could be punished under the anti-trust laws.

If two or more jobbers were to agree not to sell goods to another jobber because he sold goods to consumers, they could be punished under both state and national laws.

Hence we find that the situation between canner, broker and jobber, in respect to their relations, so far as their sphere of active effort is meant by their relations, must be individual and ethical or moral entirely, for it cannot be legal if there is any element of co-operation by agreement.

A case in point is that of the Southern Wholesale Grocers' Association. It's officers and members were fined in the United States courts very recently because they published a "green book" containing a list of wholesalers and let manufacturers understand that they would not be patronized if they sold parties not classified as wholesalers at wholesale prices.

A great condition of confusion exists, and probably will continue, as to the trade restrictions between canner, broker and jobber.

Hence we find canners selling direct to retail grocers, brokers selling to large retailers, and jobbers and canners selling to large consumers.

It being held as opposed to public policy and the law that any restrictions be agreed to or placed upon distribution or commerce, there are only two other influences which can be depended upon to preserve and maintain the proper relations between canner, broker and jobber, namely, self-respect and ethical or moral influence.

We all know, in this country of magnificent distances and high freight rates, that all the elements or factors employed in our plan of distribution are essential; the canner to prepare and produce canned foods; the broker to sell them; the wholesaler to buy them in carload lots, thereby saving a heavy difference in freights, to extend credit to the retailers, to carry the surplus stocks and to act as banker to the entire plan, and the retail grocer to furnish the goods to the consumers in quantities to suit the wants of each.

I have been unable to find where anyone has written or spoken carefully, or after much research or thought, upon this much-vexed question of the mutuality of interest or true relations between canners, brokers and jobbers. Therefore, if we can find no precedents in law and no guidance in philosophical literature, we must place the responsibility upon our consciences, each doing his part individually. "Honor and fame from no condition rise; act well your part, there all the honor lies."

It is morally recognized that the sphere of the canner is manufacturing. If he distributes his goods through the jobber, believing it cheapest, safest and best to do so, he is in honor bound to refrain from intruding upon the jobber's privilege of supplying the retail trade.

If he wants his own labels introduced, he can always arrange with some jobber to co-operate with him and to handle and push his brands.

If he prefers to sell direct to the retail trade, he should not expect the jobber to buy his products, and will not then be disappointed.

The broker is legally only a salesman, acting under the instruction of the principal who employs him. If he solicits the patronage of the wholesale trade he should feel in honor bound to refrain from selling to the wholesaler's customers.

There is a difference between a broker and a factor. The broker has not the goods in his possession or control; the factor has, and usually bills and collects for them.

Though not legally the agent of both parties, the broker morally and ethically is, and must stand squarely and impartially between buyer and seller when he brings them together in the transaction of business.

The wholesaler is a distributer and banker to the trade, and that is his sphere. If he becomes a manufacturer, selling the jobbing trade, he cannot complain if canners compete with him in the retail trade.

A wholesaler does not, in my opinion, become a manufacturer, or competitor with manufacturers, merely by using his private label on canned foods, for it is not his purpose in doing so to sell the wholesale trade; but it is his object in doing this to advertise his business, to hold and make permanent his customers, and to protect his profits.

We hear a great deal in these days about the securing of legislation to put the canner's name on the label; but, sincerely speaking, I do not consider the matter of much importance to canners. To introduce a label and establish a trade for it is a most expensive undertaking, and the expense must be continuous and persistent in order to keep the label on the market. Should any of the canners who have established their labels discontinue advertising for a single year, the waves of oblivion would roll over their reputations, and their labels would disappear from the grocers' shelves. At present I am of the opinion that canners who pack goods for private labels make more money than the big advertisers who push their own brands.

In conclusion, Mr. President, this is a great country, and it has a wide-open, unrestricted commercial policy from a legal point of view. Any man in business, be he canner, broker or wholesaler, has a right to conduct his individual business as he pleases, and there is nothing in the Constitution of the United States or in our laws to say him nay, as long as he keeps the peace, doesn't slander his competitors, and deals honestly with the public.

But, Mr. President, there is an immutable law of reciprocity and compensation in God's grand universe, and in the wisdom and by the will of our Creator there is a place for every man, and every man is safest and happiest in his appointed place.

There is an unwritten law of right and conscience which we do not find in the law books. This will safely guide us if we will heed it.

Did I say an unwritten law? I am wrong! It was written, and as written it reads:

"Thou shalt not covet thy neighbor's house, thou shalt not covet thy neighbor's wife, nor his man servant, nor his maid servant, nor his ox, nor his ass, nor anything that is thy neighbor's."

It is God's rule of reciprocity, and forbearance and mutual consideration, and it was written thousands of years ago, in the midst of a a dark cloud, upon the summit of Mount Sinai, while the earth quaked and trembled, and the lightning blazed and flashed, and the thunders rolled and crashed, and it was written on stone tablets by the finger of Almighty God. It is the best law today by which to regulate the relations between canner, broker and jobber, and all other human relations.

CHAPTER LIX.

HOW TO INTRODUCE YOUR BRAND OR LABEL.

There was once a philosopher who claimed that he could make shoes though he had never made any. I am not in that dubious or unfortunate position in writing this chapter, as I have introduced on the market a number of labels which are still popular.

The control or ownership of a label, in these days of strenuous advertising, is wisely regarded as important; for there is no other means of holding a patronage once gained, or of securing the cumulative benefit from care and from painstaking effort to give good quality and full value. In fact, there is no other basis upon which to place a progressive and enterprising effort, for it is the repeat orders that pay the profit after the first order has been obtained.

Canners, a few brokers, the wholesalers, and some retailers now, to a greater or less extent, use their own labels on canned foods, and I know of a few instances wherin commercial travelers have had their own personal labels put on a line of canned foods.

Labels are now very cheap. They are, in addition, made in artistic and brilliant styles, so that even a small output can be introduced under private label.

As I have stated previously in this book, the canner puts his label on the cans because they contain his product and because he naturally desires to derive whatever advantage he can from its merit. He sometimes objects to putting a dealer's label on his product and he resents the practice of concealing the source of the goods.

A LOAD OF SALMON BEING TOWED TO CANNERY BY TUG

SCENE IN ONE OF NEW YORK'S CANNING KITCHENS

SEALING MEAT CANS UNDER VACUUM

Dealers are prompted by the same motive, namely, a desire to be associated with their brand; and by the additional purpose of securing for themselves a fair margin of profit and of avoiding the onslaught of price cutting competitors. There is no immorality or deception involved in a dealer's labeling goods with his private label as the law compels him to print on the labels the words "distributed by" or "packed for." This plainly shows that the owner of the label is not a manufacturer. Many canning establishments which put out large lines of canned foods include among them some that they do not pretend to manufacture themselves.

The first step in the introduction of a label is to get a label or a series of labels. Vignettes, colors and styles are made in great variety and can be obtained without expense by writing to label manufacturers who specialize in canned food labels. A catchy trademark name is harder to get, in fact, it would seem that everything appropriate has already been used or patented. Some word that rolls off the tongue easily and that has some significance or reference to superior quality should be chosen. Then a neat design and conspicuous vignette should be selected. It is not necessary to have the name of the owners of the label very conspicuous, but the word by which the line of goods is to be known and advertised should be prominent. Firm names change, but trademark or advertised names go on forever, as they represent property or good will. Bright or light colored labels soil more easily than dark colored ones, but the latter look dismal in a poorly lighted store and are not so attractive as light colored labels.

Having selected a label, mail it to "The Librarian of Congress," Washington, D. C., and have it patented. The fee is $25.00. You do not need any legal help as the department will advise you whether the word or design has been previously patented and the label manufacturer will advise you if it is being used on canned foods by any other concern.

Canners usually have three series of labels for three grades of goods—Fancy, Extra Standard and Standard—but some have more than one series and some have quite a number of labels in order to give control of a line or label to competing dealers in the same territory or district.

Large wholesalers also frequently have a number of different labels for the same purpose or reason.

For houses of moderate capacity the three series of labels for canned foods is sufficient, viz.: Fancy, to be retailed at 20 to 25 cents the can; Extra Standard, to be retailed at 15 to 20 cents the can, and Standard, to be retailed at 10 to 12½ cents the can.

Labels should be kept in cases or on shelves carefully protected by doors or curtains from the light, and from coal or other dust, as they

are liable to change color, to become soiled or to become of no particular color.

The laws in nation and in state require that the label shall state the truth. Consequently, all exaggerated description of qualities should be avoided.

In some States the law requires that the net contents of the cans shall be stated in weights on the label. The national law does not so require; but it does require that, if the net contents in weight are stated, the statement must be true.

Full information in relation to labels, and labeling in respect to national and state laws is given elsewhere in this volume under the chapter title of "The Law and The Label," and those interested in the introduction of their own labels or brands should be guided by it and should attempt to issue or print no labels except in strict compliance with national and state laws.

After the labels are ready the work of introducing them begins; and it is a process that requires much patient and continuous effort and no little expense.

The manufacturer of your labels will make and bind for you label books. These containing one each of all your canned foods labels. You should have enough made to furnish one to each salesman as well as some for retailers who are likely to take an interest in promoting the line. These frequently have house-to-house or wagon salesmen who could carry a label book and take orders through its use.

You need not wait for the packing season to begin the introduction of goods under your own label, as it is always possible to find goods, at least of a few kinds, that are being held unlabeled by canners. A complete line, of course, must be packed to order; and orders must be placed in advance of the packing season. A few staple articles are enough to begin with, however, a good extra standard corn, and peas, and tomatoes, for instance, until a full line can be had. This preliminary work will pave the way for a sale of the full line.

In selecting grades exceeding care should be used. It is just as dangerous to put out a quality higher than the grade you can hope to furnish as it is to put out an inferior quality.

Let there be no deviation from season to season or year to year in the quality of your goods. If prices advance, advance your price; but never! never! lower the quality in order to continue the lower selling price. That policy is suicidal. Have your qualities exactly uniform, neither better nor poorer than the qualities you have previously furnished. If such goods are not to be obtained, discontinue the sale of that article until the quality again is obtainable.

I shall suppose that the line selected includes three grades—Fancy, Extra Standard and Standard.

Have your Fancy or Extra line the best that is produced. This line will be the one of smallest sale and should be produced and purchased in limited quantities. This provision does not apply to all localities nor to all varieties, as there are localities where Fancy qualities sell best, and there are kinds of goods (like Sockeye salmon or asparagus), in which the Fancy quality has the largest sale. Every market and every locality is different in this respect, and information can only be obtained by experience and experiment.

In selecting goods for your Extra Standard label continue to use the utmost care. Buy goods fully up to grade and be sure that they run uniformly. Do not put your label on goods until you know that they are right. Some money can be saved by having your labeling done at the cannery, as it is done there without charge; but some houses have all goods shipped unlabeled, securing a "labor for labeling" allowance of one cent or more a case and doing their own labeling.

If you have a labeling machine the goods can be labeled, for the allowance stated, in lots of one thousand cases. Even if it costs more, however, there is a protection which is desirable in doing your own labelling. You can thereby keep absolute guard over the privacy and character of the qualities placed under your private labels.

Your Extra Standard line should be that of largest sale, it being usually the 15 cent straight or two for 25 cents retailer. Penny change has to some extent varied the retail prices on canned foods from the 10, 15, 20 and 25 cent basis, but approximate selling prices are still along that range. Make your Extra Standard line the one on which your hardest work is done. It accommodates more people who use canned foods—the great middle class—than the other lines, and has therefore greater possibilities of development.

Some wholesale houses and some retailers do not handle the Standard grades of canned foods under their own labels, buying and selling nothing for their own labels below Extra Standard, and using canners' labels or brands only in the Standard grade. This policy has its feature of safety; but, by careful buying, good value can be given under your label in Standard quality. By excluding it you deprive yourself of an important trade field and yield that field to your competitor; or you enter it upon a basis of open competition in using canners' labels, and at margins of profit that are not desirable.

The next step is to take your salesmen into your confidence, tell them what you propose to do, and show them how they will be benefitted. Cut samples for them freely and, for comparison, secure samples of competing brands from retailers' shelves. Imbue your salesmen, city and country, with absolute confidence in your qualities. Unless you do, they cannot and will not sell the goods. Furnish them with label books and samples to cut and show to dealers.

The salesmen will secure the co-operation of retail grocers. This is indispensable. There is no use wasting time or money introducing a label if the goods are not on sale by retail grocers so that they can be obtained by consumers. The co-operation and interest of the retail grocers must be obtained by demonstrating the quality to him and by securing both the interest and the confidence of his clerks in your line of goods. You should furnish aggressive retailers with label books and some samples to cut and show to their customers, and it will be found helpful to induce their clerks to carry label books and recommend the brand.

"Store Demonstration" is used to good advantage. Bright women with good selling ability are used, being located in stores that have a good calling line of customers. The samples are cut and are nicely and temptingly arranged in glass dishes—the demonstrator taking orders, to be filled by the store, in which she works. It is usual to change stores at least once a week or oftener, unless good results are obtained. This method is practical, immediate, direct and effective, and it is not very expensive.

House-to-house canvassing by men or women salesmen, the orders to be filled by whatever retailer the consumer selects, is effective and more general in results than store demonstration; but the attention of consumers is harder to obtain, as this kind of work is usualy overdone by all kinds of canvassers. The expense is about the same as that of store demonstration, but the results are usually not so satisfactory.

The distribution of brief and well written pamphlets by retailers (with their purchase deliveries) is very cheap; and, as it is direct, it frequently brings good results. When ordered in considerable quantities, such advertising slips or pamphlets can be bought for from 40 to 60 cents per thousand.

I have never been able to find satisfactory results from show cards, expensive or otherwise, to be placed in retail stores. I regard the money spent in this way as wasted.

Donating samples of canned foods to church fairs or to institutions is a waste of money, if done for advertising purposes. No one ever sees the goods but the cook, and the cook don't stop to read the labels beyond a glance at the picture or vignette to ascertain the contents.

Street car advertising is good and frequently effective, but quite expensive.

Advertising in good Trade Papers is a cheap and effective way of securing the interest and co-operation of retail dealers; but it must be supplemented by the work of salesmen in order to obtain the best results.

Display advertising in large metropolitan papers is enormously expensive and is a waste of money, as no one takes time to read such advertising. Small advertisements in such papers, at the bottom of columns, or intermingled with the "Want" advertisements are some times effective. In the smaller cities or towns, where the local daily papers are read more thoroughly, display advertising can be used to advantage and is not so costly.

Pamphlets to be sent to consumers by mail, or to be distributed by hand, of course have a value; but in results are entirely disproportionate to the expense. This method is quite common—too common, in fact, to be effective; and it is being so abused that it has become exasperating to consumers. Distribution with retailers' purchase deliveries is a far superior method.

The same thing can be said of billboard advertising. The results are too indefinite to justify the expense, and, besides, the general public is being educated to consider billboard advertising as the acme of bad taste, and as a species of vandalism, that can be regarded only as an impertinent public nuisance.

Displays of canned foods at fairs or expositions are practical, direct and general in application. A mere exhibition of quality by samples is not sufficient, and is too ephemeral. The demonstrators must take orders for the goods while demonstrating, otherwise there will be no results. This kind of work is expensive, owing to the cost of space and the necessity for erecting handsome and attractive booths.

Lectures to clubs, church societies, pure food organizations, high school classes and to most all women's organizations are practical and excellent, and not very expensive. Sometimes the retail dealer will undertake such work; but genrally it must be done by a woman or man expert. When illustrated with lantern slides, such lectures are much more effective than otherwise. An entertaining and instructive talk about canned foods, so illustrated, is usually welcomed when properly explained; and the advertising of your label can be made incidental, being interspersed in the talks or on the lantern slides. Samples of quality should also be shown on such occasions, as the proof of the pudding is in the eating.

The advance sale of your brand or label should begin about January 15th of each year, and it should be industriously and thoroughly pushed until the goods are in stock and ready for delivery.

The introduction of a label is expensive, and those who attempt it, like a man planting a tree, are working to a considerable extent for the benefit of people to come after; but, by exercising care as to expenditures, it can be made profitable from the beginning. The advertising or other method of introducing one's label or brand of canned foods is

of greater benefit to wholesale grocers than to canners, for the wholesale grocer obtains advertising prestige thereby for an extensive line of other goods, since these follow the canned foods label into a retailer's stock just as commerce follows the flag on the high seas.

CHAPTER LX.

HOW TO CARE FOR CANNED FOODS.

When I took charge of a canned foods department for a big wholesale grocery house a number of years ago, I used to examine personally the packages of each lot as the goods were unloaded from wagon or car into the warehouse, in order to see the quality and condition of cases and cans, the style or manner of labeling, and the conditions of the cans as to rust.

On several occasions I noticed that teamsters or porters would pick up the cases and dash them the entire length of the wagon platform, or off the wagon on to a truck, with full force, as if the goods were made of rubber or were indestructible. I knew that the solder on the cans and the hem on crimped cans could easily be broken by such rough treatment; so I got the superintendent and asked him to stay with me and note the unloading of several teams. I then explained to him how easy it was to partially destroy a lot of canned foods by such handling. A notice was at once posted by him warning against such handling of canned foods on pain of discharge. After that my claims for swells were much smaller.

In this connection I cannot do better than to copy a part of Bulletin 18 of the National Canners' Association on this subject. I do so by permission. It reads:

"There are many canners, brokers, wholesalers and retailers who seem to think that if care has been used in the packing of a food product, further precautions in its handling are unnecessary. This is a most unfortunate view point and needs prompt correction. Damage may result from improper handling to both the container and the contents. Both must be attractive to the eye in order to command sale and to insure repetition of orders.

First, the cans may become rusted, due to having been stacked in a factory where steam reaches them during the day and cooling at night causing condensation upon the surface; also to storing in damp warehouses or in grocery cellars. The presence of rust upon a can gives an appearance of age or suggests a cheap article hardly worth ordinary care. This of itself is a handicap in selling. Wherever rust has once started is an easy point of attack in the future, and the process may continue until there is penetration of the can and consequent spoilage. The presence of rust upon the cans before they are labeled will show through the label after a time, thus detracting from their appearance. Rust can be prevented in a large measure by lacquering, and while cans so treated at one time were looked upon with suspicion, lacquering is now regarded as an excellent preventive of damage from outside, and is certain to come into more general use as its object be-

comes better understood. Rusting should be prevented, as far as may be possible, by storing in dry quarters, by avoiding such sudden changes in temperature as will cause precipitation of moisture upon the surface, and by the use of dry packing cases. The use of green wood and water soaked lumber for boxes, simply because they cost one or two cents less, is no economy.

A very common mistake is shipping in dirty cars. It is very little work to sweep a car clean, and if this is not done the presence of dirt, traces of lime, etc., will be distributed by the motion of the car, soiling the boxes and a greater or less number of the labels. The condition of the boxes appeals to the retailer, the same as does the label to the consumer, and the cleaner they are the better. There is no easier way of 'hammring' the price of a canned article than to have it handled in a soiled package.

It is an almost universal custom to stencil all cases in making shipment, but in small orders the shipping tag is sometimes used. Such a tag should always be attached to the end, as the tacks used may puncture a can if used upon the side or top. This may seem to be such a small matter as to be scarcely worthy of attention, but there have been many hundred cans of goods spoiled in this way.

Canned foods should not be stored where they will freeze, for while slight freezing does not seriously injure the quality, in no case does it make an improvement. If cans are once frozen it is better that they should remain in this condition than to permit a recurrence. Several short freezings are much more injurious than one continuous freeze. The effect of freezing in general is to soften fruit more or less and to destroy its characteristic flavor. The effect of a hard freeze is to break some of the cans.

Canned foods should not be stored where there is excessive heat, as against radiators or close to steam pipes. The quality is injured more rapidly by heat than by cold, though the ultimate effect is much the same—softening of contents and loss of flavor. In this case color may also be affected, pears and peaches may be made more or less pink, and fruits with high color may assume a gray tint.

A grocer, upon receiving his shipment of canned foods, should open the cases and examine for can leaks. One broken can, no matter what may be the cause, can stain a remarkable number if the case be allowed to stand at the top of a stack. Cans which have been dented or mashed in shipment or handling should be sorted out and disposed of early. A hard dent on the edge of a can tends to make it a leaker, and one mashed on the side may have the ends bulged out and thus have the appearance of a swell. The exercise of a little judgment under such circumstances will be the means of keeping a clean stock to the end.

Before a claim is made for swells a test should be made to determine that fact. In packing in sanitary cans and in the attempt to give full weight as demanded by the pure food laws, many canners are overfilling. When cans are overfilled, there will be more or less puffing of the ends when they are stored in a warm place; and there will be the usual collapse, or the ends can be pushed in, when they are kept in a cool temperature. The test of the true swell and an overfill is to place the cans in a cool cellar or in a refrigerator. A swelled or spoiled can will not collapse at the ends, while an overfilled can will do so.

There are some lines of canned foods which should be disposed of early and not carried from one year to another. As a general proposition, fruits containing pits, as cherries and plums, acid fruits, like strawberries and loganberries, apples, apple cider, blueberries and rhubarb, should be sold

as early as possible. The longer such stock is held the greater is the percentage of loss.

Marked improvement has been made in canning foods in the past few years and it becomes necessary that similar conditions follow in their handling from the factory to the consumer."

To the foregoing excellent article I would add that canners should see to it that labels are neatly put on and that, when the cases are not stenciled, two can labels are pasted, one above the other, across one end of each case, instead of pasting one only diagonally across the face. The two labels give a bright, neat appearance to the goods and, where they are stacked up, as they frequently are in a retailer's store, the attractive and neat appearance is highly desirable.

In putting on light colored labels care should be taken to prevent too much wet paste on the label, as this wet paste creates rust and this quickly stains the label and defaces it.

Care should also be taken, when using a No. 2½ can, to trim down the label so it will not overlap the vignette. A No. 2 label should never be used on a No. 2½ or No. 3 can, as the appearance of the goods is thereby very much injured and impaired.

CHAPTER LXI.

HOW TO MOVE SLOW OR DEAD STOCK.

No matter how carefully or conservatively one buys, slow-moving stock, or "dead stock," will accumulate and the problem is how to move it.

In cities where coal smoke and dust are prevalent in the atmosphere, cases stain very rapidly and turn of a red or yellow color after being held a year. It is desirable not to carry any kinds of canned foods after the swell guarantee limit has expired, unless the market is advancing heavily.

If the slow goods are unsound, the only place to move them to is the dump or the river. Then people will not be able to feed on them and the owner cannot be sued for damages. No temptation to do otherwise should be encouraged.

If the goods are sound and wholesome, put a few cans on your sample table and exhibit the quality of the goods to all your salesmen. If the price is higher than that of competitors, reduce it and ask your men to move the goods.

Examine competing quotations before doing this. Sometimes an adjustment of price to meet the market or competing prices will move a lot of goods quickly without special effort.

If any low or reduced prices are to be made on slow-moving stock, it is your duty, and it is good business policy as well, to let your

own customers get the benefit of the lower prices, rather than to sell the goods at a sacrifice price to a competing wholesaler.

Sometimes, if you will write to the packer of the goods, he may be able to send you orders for them—having himself sold out and having orders he is unable to fill.

See the broker who sold you the goods. He may have other customers who need and can use the goods.

Make inquiry of those who handle such goods and, though they may not be able to sell them for you, they may inform you where you can, by making concessions, close them out.

See one or two or more of your salesmen who are helpful. They may have customers who handle such goods and who buy freely when offered concessions.

Get these salesmen interested and ask them, as a personal favor, to carry a sample and push the lot. Don't impose upon such salesmen by giving them such work too frequently, and do not give them too many things in the way of slow or dead stock at one time. Let them make a little extra profit on such lines. The work is worth an extra profit. If you have many lots to move, do not give them all to the same salesmen, but scatter them and place them with suitable men working suitable trade.

Issue a jobbing circular to brokers and to the wholesale trade offering the goods at a low price. This is a last resort measure.

About the most ineffective and ill advised way to push dead stock is to drag a lot of the goods into the salesroom, pile them up, and ticket them with a job lot price. You clutter up your salesroom and make it look like a junk shop. You expose your weak situation to buyers and they expect you to take any old price for the goods; and in that way you realize less for the goods than in any other way I know of, except by sending them to an auction house (which is the poorest way to dispose of dead stock I know about).

There are in Indianapolis and in Minneapolis, and probably in most large cities, concerns that conduct what they designate as exchanges. These barter goods between dealers and will get you other goods for goods you are unable otherwise to dispose of. I do not know what the value of their methods is.

CHAPTER LXII.

THE LAW AND THE LABEL.

National and state laws in relation to the labeling of canned foods and other package goods are still in an incomplete condition. State laws in some instances come into conflict with national laws, and efforts are now being made through various local and national committees of canners, brokers and wholesale grocers to secure uniformity and completeness in such laws. I can, therefore, but accept the information as issued by the National Canners' Association from time to time in this respect. Eliminating repetition and condensing as much as possible the situation at present is shown by the following documents:

Bulletin No. 2, dated June 12, 1912.

GOVERNMENT TOLERANCES WHEN WEIGHT OR MEASURE IS GIVEN.

The regulations of the Department of Agriculture promulgated for the enforcement of the National Food and Drugs Act and at present in effect are with reference to statement of weight or measure:

(a) A statement of the weight or measure of the food contained in a package is not required. If any such statement is printed, it shall be a plain and correct statement of the average net weight or volume, either on or immediately above or below the principal label, and of the size of letters specified in Regulation 17.

(b) A reasonable variation from the stated weight for individual packages is permissible, provided this variation is as often above as below the weight or volume stated. This variation shall be determined by the inspector from the changes in the humidity of the atmosphere, from the exposure of the package to evaporation or to absorption of water, and from the reasonable variations which attend the filling and weighing or measuring of a package.

With reference to the size of letters specified in Regulation 17, it is to be noted that the size of type used to declare the information required by the act shall not be smaller than 8 point (brevier) capitals: Provided, That in case the size of the package will not permit the use of 8-point type, the size of the type may be reduced proportionately.

The subject of "principal label" will be treated at length in a succeeding bulletin.

Bulletin No. 5, dated July 24, 1912.

DEFINITION OF BAKED BEANS.

In response to an inquiry from this office we are in receipt of the following letter from the Board of Food and Drug Inspection defining Baked Beans:

UNITED STATES DEPARTMENT OF AGRICULTURE,
Board of Food and Drug Inspection,
Washington, D. C., June 13, 1912.

MR. FRANK E. GORRELL, Secretary,
National Canners' Association,
Bel Air, Maryland.

Dear Sir: Replying to your letter of the 4th instant, I beg to say that, in the opinion of the Board, the term "baked beans" should only be applied to a product which has been cooked by a process of dry heating sufficient to produce the characteristic color and flavor.

Respectfully,
R. E. DOOLITTLE,
Acting Chairman.

Bulletin No. 6, dated August 20, 1912.

BRANDING OF SOAKED GOODS.

In order to offer packers of soaked goods, or of foods of which soaked goods are an ingredient, a guide in labeling their product, we call their attention to the fact that this subject has very recently been before the Courts in the districts of Massachusetts and Colorado.

In one case misbranding was alleged in the libel for the reason that the label "bore a statement, design and device regarding the ingredients and substances contained in the product, that is to say, the word 'soaked,' printed thereon in an inconspicuous manner, which statement, design, and device was false and misleading in that it would lead the purchaser to believe that the product was other than what was known to the trade as soaked beans, whereas, in truth and in fact, it consisted of soaked beans."

In the second case the allegations were so similar to those above that it is not thought necessary to quote them.

In the third case misbranding was alleged for the reason "that the labels on the can containing the statement '———— Brand Soaked Peas' and the picture of green peas in the pod regarding the cotents of the cans were misleading and deceptive, in that the word 'soaked' was in such very small type and so inconspicuous and overprinted as to make it almost illegible, and the labels were so printed and arranged as to mislead and deceive purchasers into believing that the contents of said cans were fresh green peas, whereas in truth and in fact thy were not green peas at all, but instead it was true that the contents of said cans were soaked peas."

In each of the above cases judgment was against the packer. We have heretofore called attention to this matter but regard the above judgments of sufficient importance to set them out as concrete examples of defective labelling.

WEIGHT OF CONTENTS.

The only present requirement of the National Food and Drugs Act with reference to the statement of weight on the label is, that if such statement is printed, it shall be a plain and correct statement of the average net weight or volume, either on or immediately above or below the principal label, and of the size of letters specified in regulation 17. (Eight point (Brevier) capitals).

WEIGHT OF CONTENTS 2 LBS. 6 OZ.

WEIGHT OF CONTENTS 16 OZ.

PREPARED FROM GREEN SUGAR CORN AND SOAKED LIMA BEANS.

A number of packers have been in the habit of stating the weight of the contents as being between two given weights, that is, for example, stating it thus: "20-22 ozs." In reference to such a mode of statement, the Government takes the position that it shall be construed as meaning that the weight of the contents is the intermediate weight, which in the case above would be 21 ozs., and unless such should prove to be the average net weight, the goods would be declared misbranded.

It is well also to note the Government's method of determining the average weight of cans. It is not, as understood by the Government, the average weight of a number of cans taken together, but of such cans taken separately; the intention of this method being to determine whether as many cans run over as below the stated weight; otherwise the average is not considered in the TRUE average.

Bulletin No. 7, dated September 17, 1912.

LABELING OF CANNED FOODS.

Next in importance to the actual packing of the foods comes the proper labeling of the package. Though the law has been fully complied with in the packing, it may still be violated in the branding. It is, therefore, pertinent to inquire what are the requisites of a legal label. These need not be many, although profuse statements are not forbidden, provided, always, they are true. In fact, truth in making the statements appearing on the label is the prime requisite, and failing that, all else fails with it.

The Government regulations on the subject are as follows:

MISBRANDING.

Regulation 17. Label.

(As amended by F. I. D. 84, January 31, 1908, taking effect February 10, 1908.)

(Section 8.)

(a) The term "label" applies to any printed, pictorial or other matter upon or attached to any package of a food or drug product, or to any container thereof subject to the provisions of this act.

(b) The principal label shall consist, first, of all information which the Food and Drugs Act, June 30, 1906, specifically requires, to wit, the name of the place of manufacture in the case of food compounds or mixtures sold under a distinctive name; statements which show that the articles are compounds, mixtures, or blends; the words "compound," "mixture," or "blend," and words designating substances or their derivatives and proportions required to be named in the case of food and drugs. All this information shall appear upon the principal label and should have no intervening descriptive or explanatory reading matter. Second, if the name of the manufacturer and place of manufacture are given, they should also appear upon the principal label. Third, preferably upon the principal label, in conjunction with the name of the substance, such phrases as "artificially colored," "colored with sulphate of copper," or any other such descriptive phrases necessary to be announced, should be conspicuously displayed. Fourth, elsewhere upon the principal label other matter may appear in the discretion of the manufacturer. If the contents are stated in terms of weight or measure, such statement should appear upon the principal label and must be couched in plain terms, as required by Regulation 29.

(c) If the principal label is in a foreign language, all information required by law and such other information as indicated above in (b) shall appear upon it in English. Besides the principal label in the language of the country of production, there may be also one or more other labels, if desired, in other languages; but none of them more prominent than the principal label, and these other labels must bear the information required by law, but not necessarily in English. The size of the type used to declare the information required by the act shall not be smaller than 8-point (brevier) capitals: Provided, that in case the size of the package will not permit the use of 8-point type, the size of the type may be reduced proportionately.

(d) Descriptive matter upon the label shall be free from any statement, design, or device regarding the article or the ingredients or substances contained therein, or quality thereof, or place of origin, which is false or misleading in any particular. The term "design" or "device" applies to pictorial matter of every description, and to abbreviations, characters or signs for weights, measures, or names of substances.

(e) An article containing more than one food product or active medicinal agent is misbranded if named after a single constituent.

In the case of drugs the nomenclature employed by the United States Pharmacopoeia and the National Formulary shall obtain.

(f) The use of any false or misleading statement, design, or device appearing on any part of the label shall not be justified by any statement given as the opinion of an expert or other person, nor by any descriptive matter explaining the use of the false or misleading statement given as the opinion of an expert or other person, nor by any descriptive matter explaining the use of the false or misleading statement, design or device.

Regulation 18. Name and Address of Manufacturer.

(Section 8.)

(a) The name of the manufacturer or producer, or the place where manufactured, except in case of mixtures and compounds having a distinctive name, need not be given upon the label, but, if given, must be the true name and the true place. The words "packed for....." "distributed by....," or some equivalent phrase shall be added to the label in case the name which appears upon the label is not that of the actual manufacturer or producer, or the name of the place not the actual place of manufacture or production.

(b) When a person, firm, or corporation actually manufactures or produces an article of food or drug in two or more places, the actual place of manufacture or production of each particular package need not be stated on the label except when, in the opinion of the Secretary of Agriculture, the mention of any such place, to the exclusion of the others, misleads the public.

Regulation 29. Statement of Weight or Measure.

(Section 8. Third under "Foods.")

(a) A statement of the weight or measure of the food contained in a package is not required. If any statement is printed, it shall be a plain and correct statement of the average net weight or volume; either on or immediately above or below the principal label, and of the size of letters specified in Regulation 17.

(b) A reasonable variation from the stated weight for individual packages is permissible, provided this variation is as often above as below the weight or volume stated. This variation shall be determined by the in-

spector from the changes in the humidity of the atmosphere, from the exposure of the package to evaporation or to absorption of water, and the reasonable variations which attend the filling and weighing or measuring of a package.

Considering the above regulations as applied to the labeling of canned foods, it is first to be noticed that the regulations require certain statements to appear upon what is termed the "Principal Label." The principal label is regarded by those in authority as not the whole label, but only that portion which is intended for display purposes, and which should bear the information required by Regulation No. 17 printed above.

By the courtesy of the Board of Food and Drug Inspection of the Department of Agriculture, we are permitted to publish the following letter on the subject "principal label:"

UNITED STATES DEPARTMENT OF AGRICULTURE

BOARD OF FOOD AND DRUG INSPECTION.

Washington, D. C., September 6, 1912.

Mr. Frank E. Gorrell,
Secretary, National Canners' Association,
Bel Air, Md.

Dear Sir: I beg to acknowledge the receipt of your communication of August 13th, 1912, in which the question of the principal label is discussed and certain information requested by you. The main question which is presented is what is regarded as the principal label on cans cylindrical in shape.

Regulation 17 of the rules and regulations promulgated by the three Drugs Act specifically requires shall be contained on the principal label. In secretaries provides, in part, that all the information which the Food and requiring that certain information should appear on the labels of articles of foods and drugs, Congress considered that the purchaser was entitled to this information. It considered this information was important and consequently such information should appear on the label in a place where it will be conspicuous and attract the attention of the purchaser.

The paper bearing the statements which constitute the label on cans cylindrical in shape is in some cases arranged in parts, each part bearing statements or devices appearing on the other parts. In nearly every instance some one of the parts is displayed so as to stand out more prominently than the others. In a case of this kind, it is my opinion that that portion of the paper around the can which is made the more conspicuous, either by the statements or devices which appear thereon, is to be regarded as the principal label within the meaning of Regulation 17.

Regarding the term "principal label," where a strip label on a cylindrical can is so divided as to form two prominent labels each bearing the name of the product prominently displayed so that either face may be used upon the shelves of the grocer, any statement required by law or necessary for the full description of the product should be plainly made upon each of these labels and in conjunction with the name of the substance. Of course what is to be regarded as the principal label must depend upon the facts in each particular case.

Respectfully,
(Signed) R. E. DOOLITTLE,
Acting Chairman.

It, theerfore, becomes important to inquire what information is required by the above regulations to appear on the principal label. It is the following:

1. The name of the substance or product.
2. Brand name (if given).
3. Words which indicate that the articles are compounds, mixtures or blends, and the word "imitation," "compound," or "blend," as the case may be.
4. Name of the manufacturer (if given).
5. Place of manufacture (if given), or when required in case of food mixtures are compounds bearing a distinctive name.
6. Weight of contents (if given).
7. Name of ingredient (where used).

It is well to note in connection with each of the above points the following:

1. NAME OF SUBSTANCE OR PRODUCT. Such name should be the true name of the contents of the package, as commonly understood in English. (See notice of Judgment No. 163.)

2. BRAND NAME. The requirements with reference to the brand are as follows:

(a) A simple or unmixed food (or drug) product not bearing a distinctive name should be designated by its common name in the English language.

(b) The use of geographical names shall not be permitted in connection with a food (or drug) product not manufactured or produced in that place, when such name indicates that the article was manufactured or produced in that place.

(c) The use of the geographical name in connection with a food (or drug) product will not be deemed a misbranding when, by reason of long usage, it has come to represent a generic term and is used to indicate a style, type or brand; but in all such cases the State or Territory where any such article is manufactured or produced shall be stated upon the principal label.

(d) A foreign name which is recognized as distinctive of a product of a foreign country, shall not be used upon any article of domestic origin, except as an indication of the type or style of quality or manufacture, and then only when so qualified that it cannot be offered for sale under the name of a foreign article. (See Regulation 19, also F. I. D. No. 115).

3. WORDS WHICH INDICATE THAT THE ARTICLES ARE COMPOUNDS, ETC., ETC. It is not deemed necessary to treat this division of the subject, because of its remote relation to the packing of canned foods.

4. NAME OF MANUFACTURER (if given), and

5. PLACE OF MANUFACTURE (if given), etc., etc. If the name of the manufacturer and the place of manufacture be given they must be the true name and the true place. The law permits that the name of the person, firm or corporation for whom the foods are manufactured or packed, or by whom they are distributed, may be given if preceded by the words "Prepared for," "Manufactured for," "Distributed by," etc. The phrase "sold by" is not satisfactory. The approved phrase shall be set in type not smaller than 8-point (brevier) capitals. (See F. I. D. No. 68).

6. WEIGHT OF CONTENTS. The law requires that the weight of contents (if given) shall appear either on or immediately above or below the principal label, and be printed in type not smaller than 8-point (brevier) capitals. (See Regulation 29.)

The statement of the weight or measure contained in a package is not at present required, but an amendment to require the same was before Con-

gress at its recent session and was passed by the House of Representatives and remains on the calendar for passage at the session of Congress which will convene on the first Monday of December next (1912). As at present proposed this amendment will become effective upon its passage, but no penalties shall be enforced for any violation of its provisions as to domestic products prepared or foreign products imported prior to twelve months after its passage. (This subject was fully covered by Bulletin No. 2 issued by the Association on June 12th, 1912.)

A number of different States now require a statement of weight or measure to appear on the label and some of these require that it be given in pounds and ounces (that is, for example, 1 lb. 4 oz. and not 20 oz.)

7. NAME OF INGREDIENTS. Any statement with reference to the ingredients used should appear on the principal label accompanying the name of the product, without intervening descriptive or explanatory matter, and be printed in type not smaller than 8-point (brevier) capitals. For instance, in the preparation of succotash, if soaked beans and soaked corn are employed, the same should be accompanied by a declaration of that fact in the manner mentioned above. (See F. I. D. No. 71.)

REQUIREMENTS AS TO SIZE OF TYPE. It will be noted that certain of the matters which the law compels to appear on the principal label are to be printed in type not smaller than 8-point (brevier) capitals. For the guidance of packers and label printers a sample of that type is here shown.

WEIGHT OF CONTENTS 2 LBS. 6 OUNCES.

WEIGHT OF CONTENTS 16 OUNCES.

PREPARED FROM GREEN SWEET CORN AND SOAKED LIMA BEANS.

PACKED BY JOHN DOE, DOESVILLE, VA.

DISTRIBUTED BY RICHARD ROE, ROESVILLE, MINN.

Passing now from the consideration of the "principal label," it is to be noted that the Government takes cognizance not only of the statements on the label, but of any design or device appearing on any part of the label. These are permitted so long as they are not false or misleading, but care should be exercised to see that they conform clearly and completely to the truth in every aspect. (See F. I. D. No. 113.)

The same is true of any descriptive matter appearing on the label—it must be wholly true and without extravagance or exaggeration. Bear in mind that the law forbids all forms of misrepresentation, and it is not sufficient that a deceptive statement, design or device should be allowed to remain on one portion of the label with a corrective statement upon another portion of the label. (F. I. D. No. 113, also F. I. D. No. 68.)

In this connection, it should be noted that all substances when named upon the label should be given the distinctive name by which they are known in the trade. For instance, where soaked beans or corn are used for any purpose, the adjective "soaked" should be used in defining such product and not the word "dried."

(Opinion on request of Board of Food and Drug Inspection.)

GUARANTY. The Government permits and has provided a general guaranty. The packer may file his general guaranty with the Secretary of Agriculture and have issued to him a serial number and so become entitled to use the serial number guaranty. When such guaranty is used the serial number should appear in connection with and preferably before the guaranty legend, which legend should read as follows: "Guaranteed by (here in-

sert name of guarantor) under the Food and Drugs Act, June 30, 1906." (See F. I. D. Nos. 20 and 99, also opinion on request of Board of Food and Drug Inspection, also F. I. D. No. 72.)

Regulation 18 provides that if the name of the manufacturer and the place of manufacture be given, they must be the true name and the true place. It would appear, therefore, that the use of a fictitious name in such a manner that it would be understood to be the name of the manufacturer would be clearly a violation of Regulation 18. It is apparent that the provisions of Regulation 18 will not be fulfilled by the nominal incorporation of a fictitious firm. The regulations require that the foods must be actually manufactured by the firm represented on the label as the manufacturer. This is the construction put upon Regulation 18 by the Board of Food and Drug Inspection. (See F. I. D. No. 46.)

Summing up the aforegoing it is plain that the whole spirit and intent of the law and the regulations for its enforcement are to require and compel the label to speak nothing but what is absolutely true and to convey no impression that may be false or misleading, and to require that the several matters mentioned in said regulations shall be arranged in the position and printed with the size of type set forth in said regulations in order that they may plainly and conspicuously appear.

An amendment to the Act of June 30th, 1906, known as the Pure Food and Drugs Act, was passed by Congress March 1st, 1913, and is as follows:

AN ACT. To amend section eight of an Act entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors and for regulating traffic therein, and for other purposes," approved June thirtieth, nineteen hundred and six.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.

That section eight of an Act entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein, and for other purposes," approved June thirtieth. nineteen hundred and six, be, and the same is hereby amended by striking out the words "Third. If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package," and inserting in lieu thereof the following:

"Third. If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count: Provided, however, That reasonable variations shall be permitted, and tolerances and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provisions of section 3 of this Act.

Sec. 2. This Act shall take effect and be in force from and after its passage: Provided, however, That no penalty of fine, imprisonment or confiscation shall be enforced for any violation of its provisions as to domestic products produced or foreign products imported prior to eighteen months after its passage.

Bulletin No. 12, dated April 26, 1913.

SOAKED PEAS AND SUCCOTASH.

The Board of Food and Drug Inspection, after very thorough study of the subject, determined that the proper labeling of the product heretofore designated as "soaked peas" is "soaked dried peas" or "soaked ripe peas," as the case may be. The Board is of the opinion that the terms "dried peas" and "ripe peas" are not proper designations for these products, inasmuch as they are the name of other definite substances. However, the Board has expressed the further opinion that it is very doubtful if any objections could be raised to the designation of these products, as "Peas, prepared from dried peas," or "Peas, prepared from ripe peas," as the case may be, provided the modifying phrase, "Prepared from dried (or ripe) peas" be plainly stated in immediate connection with the word "peas," whole phrase thus forming the name of the product. The Board also adopts the understanding of the trade as to the difference between dried and ripe peas, the former being the peas gathered in the succulent state and dried, and the latter being those which have ripened on the vine.

In view of the above expression, the secretary's office addressed an inquiry to the Board to learn its attitude with reference to the labelling of succotash, and has a reply to the effect that the same principle has been applied by the Board to ripe lima beans used in the preparation of succotash, it having been held that the product might properly be branded "Prepared from green corn and dried lima beans," plainly stated in immediate connection with the word "Succotash."

Bulletin No. 12, April 26, 1913.

PETIT POIS.

By a recent ruling of the National Board of Food and Drug Inspection, it is now permissible to use on the label of cans the term "American Petit Pois" in labeling peas of the proper grade.

Bulletin No. 12, April 26, 1913.

AS TO STENCILING CASES.

Sometime since we received a letter from a member of the Association enclosing one from a large wholesale grocery house asking whether, in the opinion of our counsel, it was necessary to stencil cases of canned foods so as to show the weight of the contents.

This matter was referred to our attorney. He handed in an opinion based upon the Federal Pure Food and Drugs Act, the regulations promulgated for the enforcement of that act, and the decisions of the courts upon questions having relation to the one propounded. We believe the matter is of sufficient importance to justify publication of the opinion in full, and the same is here appended:

"The question raised by these letters is the necessity or not of showing the weight upon the cases containing canned foods.

"Considering this question in the light of the recent amendment to the National Pure Food and Drugs Act of June 30th, 1906, and the laws of the several States now in force on the subject of labelling canned foods, I would say as follows:

"1. The amendment to the National Law above referred to provides that an article shall be deemed to be misbranded when "if in package form the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count: Provided, however, that reasonable variations shall be permitted, and tol-

erances and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provision of section three of this Act."

2. The above amendment is now in force, although by its terms no penalty of fine, imprisonment or confiscation shall be enforced for any violation of its provisions as to domestic products prepared or foreign products imported prior to eighteen months after its passage, and the date of its passage was March 3, 1913. I take it, however, that the Messrs. Stevens wish to be informed as to the proper method of labelling under the above amendment, so that they may make provision to meet its terms fully.

Regulation No. 2 for the enforcement of the Food and Drugs Act declares:

> "The term 'original unbroken package' as used in this Act is the original package, carton, case, can, box, barrel, bottle, phial or other receptacle put up by the manufacturer, to which the label is attached, OR WHICH MAY BE SUITABLE FOR THE ATTACHMENT OF A LABEL, making one complete package of the food or drug article. The original package contemplated includes both the wholesale and retail package."

3. "From the above regulation it appears that by 'package' is understood any receptacle put up by the manufacturer to which the label is attached, or which may be suitable for the attachment of a label, and includes both the wholesale and the retail package. It is true that the above regulation was promulgated before the enactment of the above amendment, and while there was no requirement of the National law with reference to a statement of the weight of contents on the label other than, if such statement were made, it should be a true statement, yet it shows clearly how similar words now found in the amendment were construed, and hence, how they are likely to be construed again. In practical operation, then, it is more than likely that the department will construe the amendment as indicated by the regulation above quoted, will require that all package goods shall be labelled, and will hold that the word 'package' is sufficienty broad to include the case which holds the can as well as the can itself.

"Upon the whole, then, I would advise that all cases of canned foods be so stencilled as to show thereon the contents in terms of weight per can. For instance, "2 dozen (2 lbs. 8 oz. each) No. 3 Cans." Of course, it is to be understood that the principal label upon each can will make a like statement.

"A number of the States also require a statement of the weight of contents, and from a reading of the laws of the several States now in force on that subject, I believe the method of stencilling the cases, as above indicated, would meet the requirements of those laws."

QUERY BY LEE.

Would not the pasting of one or two case labels across one end of the cases comply with the regulations and the law? Then the stencil "2 doz. No. 2 cans," as heretofore, with can labels herewith, which can labels have printed on them all legal requirements, would seem to comply with all the conditions named. The vignette or picture would characterize the article in the can as well as the words designating the grade, the weight, the canner or distributor, the

locality where packed, etc. This would simplify labeling very much and, so far as I can perceive, would be in absolute compliance with the spirit and the letter of the law.

Bulletin No. 14, May 23, 1913.

LABELLING AS DISTRIBUTORS.

Since the publication of Bulletin No. 12, a great many inquiries have been received in reference to the use of the word "distributor" by the packer upon his own goods, and as a matter of general information we publish the recent opinion of our counsel, as follows:

"The question asked is whether it is proper to label all goods sold by you, including those packed by your own company, as well as those packed on your order, or purchased by you from other packers, as "distributed by ....." I am of the opinion that such labeling would be entirely proper. This is not in conflict with the view expressed in Bulletin No. 12, for there the question was whether a certain canning company could use a label bearing its own name as "packers and distributors" upon all goods put out by them, including those packed by the company and those it purchased. My reply was that it could not legally do so, because such labeling wolud indicate that the company PACKED AND distributed all the goods bearing that label, when in fact a part of the goods were to be purchased from others."

THE PRINCIPAL LABEL.

Correspondence set forth in this bulletin between F. E. Gorrell, secretary National Canners' Association, and the Board of Food and Drug Inspection of the National Agricultural Department, goes to show that:

The government does not require that the canned foods' label shall be separated into parts, one of which, in virtue of the arrangement of the matter thereon, becomes the principal label; but if the packer himself, by such arrangement constitutes a part of his label the principal label, then Regulation 17 applies with full force. That is to say, if the packer should so arrange the matter of his label as to make one portion thereof unjustly prominent, so that it would attract and hold attention to the exclusion of the other parts of the label, then upon such most prominent part of the label should appear the statements required by Regulation 17; but, so long as no one part of the label is especially prominent, any part of the label is permitted to contain the statements required under the regulation, provided they are plainly and conspicuously set forth.

Attention is called to that part of Secretary Galloway's letter which says: "The Board, however, does take exception to a label of the nature of No. 3, where a statement that the product is packed with juice from trimmings is made IN AN INCONSPICUOUS MANNER, not connected with the name of the material. In the opinion of the Board, whenever it is necessary to make a qualifying statement upon the label regarding a product, that qualifying statement must directly modify the name of the product itself.

It is important to bear in mind that any such qualifying statement should be made with such prominence and distinctness as to be at once evident to the purchaser. Such statement should be as terse as possible and not accompanied by unnecessary verbiage nor by any arrangement of matter which would conceal its true meaning.

We think the attitude of the Government as shown by the letters above quoted is a reasonable and consistent application of the regulations for the branding of canned foods, and that it should be easy of comprehension by all concerned.

It is thus left with the packer to so arrange the matter on his label as to fully meet the requirements of law, without compelling him to group all necessary statements upon a single portion of the label; but, in doing this, he must act with due regard to the effect of such arrangement, and not render inconspicuous or obscure such statements as are required to be plainly and conspicuously set forth.

This is consistent with the whole intent of the law, that no deception is permitted in the branding of food products, and so long as the label contains the proper statements truly and fairly set forth, no objection will be urged against it.

At the same time the packer must exercise every possible care that neither the whole label or any part of it is in any way misleading.

CHAPTER LXIII.

NATIONAL AND STATE WEIGHT AND LABELING LAWS.

Bulletin No. 17, August 16, 1913.

WEIGHT OR MEASURE BRANDING LAWS.

In order that the members of the Association may be advised with reference to compulsory weight or measure branding laws which have been enacted, so far as the same apply to canned foods, and the dates when the same become effective, we append the following summary:

NATIONAL

The amendment of March 3, 1913, to the food and drugs act of June 30th, 1906, provides that food in package form must he labeled to show the quantity of contents in terms of weight, measure or numerical count. The regulations for the enforcement of this amendment are now being formulated.

This law does not apply to domestic products prepared or foreign products imported prior to September 3, 1914.

CALIFORNIA.

The Act of 1913, Chap. 167, provides that all food products sold in a container must be labeled to show the weight, measure or numerical count of contents. The law defines a container to be the receptacle in which the commodity is packed for sale or exposed for sale. Designation shall be in weight, measure or count, as is most feasible according to the character of the product: If by weight, it must be in terms of pounds, ounces or fractions avoirdupois; if by liquid measure, in terms of gallons, quarts, pints or fractions thereof; if by solid measure, in terms of bushels, pecks, quarts or fractions thereof; and if by count, the same shall be expressed in English words of Arabic numerals. In stating the contents, one of the following phrases shall appear: "Net Contents," "Net Weight," "Net Measure," or "Net Count." Unavoidable discrepancies are not to be held a violation of the Act; nor is it a violation, if there is a discrepancy, provided the seller of the article purchased the container in good faith, relying upon the statement

of the contents in the container, provided, further, that the name of the packer, manufacturer, wholesaler or jobber appears upon the container.

This law takes effect April 1st, 1914.

CONNECTICUT.

The Connecticut law now in effect requires all food products in package form, except confectionery and shelled nuts, sold for 10 cents or less, to be labeled to show the weight, measure or numerical count, with allowance for reasonable variations, under rules and regulations made from time to time by the dairy and food commissioner and the director of the Connecticut experiment station.

This law is now in effect, and by a ruling of the courts the term "package" has been construed to cover such things as cases of bottles. Therefore, under the Connecticut law, canned foods designated for sale in that State should be marked or stenciled in a way to show the net contents of the cans enclosed.

FLORIDA.

Under the law now in effect it is necessary to state the weight, measure or numerical count of contents on all food products sold in package form. Reasonable variations are permitted. The regulations provide that the net weight shall be stated in pounds or ounces, avoirdupois, and that the net measure shall be stated in United States standard gallons, quarts or fluid ounces. Packages containing more than a pound shall state the weight in pounds and ounces; weights less than a pound shall be stated in ounces. It is not permissible to state a pound or more in ounces, or one quart or more in fluid ounces.

IOWA.

The act taking effect September 3, 1914, requires that food products in package form shall be labeled to show the weight, measure or numerical count of contents. Reasonable variations are permitted.

MAINE.

Under the Maine law canned foods must be labeled to show the quantity of contents in terms of weight, measure or numerical count. Reasonable variations are permitted. The law does not apply to articles purchased prior to January 1st, 1914.

MICHIGAN.

Food products in package form are required to bear upon the principal label a statement of the true net weight in terms of pounds, ounces and grains avoirdupois, or true net measure, in terms of gallons of 231 cubic inches or fractions thereof, and quarts, pints and gills, or true numerical count. Reasonable variations are permitted. Goods received by wholesalers or retailers on or before January 1st, 1914, were exempt until September 1st, 1914.

MONTANA.

All commodities, including food products in package or container when sold or offered for sale, must be labeled with a correct statement of the weight, measure or numerical count. In determining whether or not the correct weight is stated, the usual leakage, evaporation or waste shall be taken into consideration. A variation of 3 per cent. from the stated weight is allowed, provided the variation is as often above as below the weight stated.

These provisions took effect January 1st, 1914.

NEBRASKA.

Beginning March 4, 1914, ALL FOOD PRODUCTS IN PACKAGE FORM must be labeled to show the weight, measure or numerical count of the contents. AT PRESENT, the weight, measure or numerical count must be stated upon a number of articles, including dried fruits. Reasonable variations are permitted with the same proviso as in the Montana law. Packages put up by the retailer and packages in the hands of the retailer at the time the act took effect, April 14, 1913, are expressly exempted by statute.

NEVADA.

All commodities in package form, including food products, must be labeled with the weight, measure or numerical count of the contents. A slight variation is permissible, when the same is as often above as below the weight stated, and the ordinary evaporation, leakage or waste shall be considered in determining whether or not the statement of weight is true.

This law is now in effect.

NEW HAMPSHIRE.

The Act taking effect November 22, 1914, requires all food products in package form to be labeled to show the weight, measure or numerical count of contents. Reasonable variations are permitted.

NEW YORK.

All commodities sold in containers must be labeled to show the weight, measure or numerical count. Reasonable variations are permitted. The size of type to be used in marking the weight is prescribed by regulation, as follows: "In type at least one-ninth inch in height where the weight of contents is in one-quarter pound, one-half pounds, or multiples of one-half pound; otherwise in type at least three-sixteenths of an inch in height." The statute does not apply to commodities packed prior to February 1, 1914.

NORTH DAKOTA.

All food products in packages must be labeled with the weight. Reasonable variations are permitted.

The law is now in effect.

OREGON.

Food products in package form must be labeled to show the weight, measure or numerical count. Variations are permitted. The statute takes effect July 1st, 1914.

PENNSYLVANIA.

The law approved by the governor about July 24th, 1913, provides that every commodity or article of food packed in containers of any description shall bear a plainly legible statement of the net weight, measure or numerical count of the contents or of the net volume thereof, and the name and address of the manufacturer, producer or distributor. Reasonable variations, to be established by the chief of the Bureau of Standards, are permitted.

The act becomes effective eighteen months after its approval.

SOUTH DAKOTA.

The law now in effect provides that all food products sold in package form, bottle or container, must be labeled to show the weight, measure or numerical count. Variations are permitted.

UTAH.

All food products in packages must be labeled with the weight, measure or numerical count. Reasonable variations are permitted. This law was passed in 1913 to take immediate effect. Time is being allowed to dispose of goods on hand, but no announcement has been made as to the limit of such permission. All goods shipped into this State should be immediately labeled in order to comply with the statue, and goods on hand should be disposed of as rapidly as possible.

WISCONSIN.

Foods in package form must be labeled to show the weight, measure or numerical count. Reasonable variations are permitted. This act takes effect September 3rd, 1914.

WYOMING.

Food products in package form must be labeled with the weight, measure or numerical count. Reasonable variations are permitted. The act is now in effect.

CHAPTER LXIV.

ARBITRATION.

Bulletin No. 3, July 1, 1912. Issued by authority of the executive committee of the National Canners' Association.

NATIONAL UNIFORM PLAN OF ARBITRATION.

Ratified by the National Canners' Association and by the National Wholesale Grocers' Association and by the Board of Directors of the National Canned Goods and Dried Fruit Brokers' Association.

ARBITRATION CLAUSE.

All disputes arising under this contract to be arbitrated in the usual manner, unless there is a regular Arbitration Board appointed by the National Wholesale Grocers' Association and the National Canned Foods and Dried Fruit Brokers' Association and endorsed by the National Canners' Association, for the district in which the dispute arises, and then by three members of such Arbitration Board. The decision of the Arbitrators to be final and binding. Each Arbitrator to be paid five ($5.00) dollars and necessary expenses. Cost of the arbitration to be paid by loser.

AN AGREEMENT.

We, the undersigned, hereby covenant and agree to submit to, and do voluntarily submit to the Arbitration Committee appointed by the National Wholesale Grocers' Association, the National Canned Foods and Dried Fruit Brokers' Association, and endorsed by the National Canners' Association in the city of ————————, for its consideration and adjudication, a controversy now existing between us in regard to and we hereby covenant and agree to and with each other to abide by such decision as the said committee may render in the premises, and hereby authorize and empower the said committee to determine whatever allowance, in their opinion, should be awarded. (It is understood that the preceding allowance clause is optional with the parties interested. This option, however, must be exercised before the ar-

bitration takes place). And we further agree that the findings of this committee shall be as binding upon us, our heirs, administrators, executors, successors or assigns, as would be a decision of the court of last resort of the State of ————————.

(This agreement to be officially signed and witnessed before a public officer.)

DETAILED MANAGEMENT REGARDING AN ARBITRATION.

When a dispute arises for arbitration the parties thereto shall advise the Chairman of the Arbitration Board for the district in which the dispute takes place. The Chairman of the Arbitration Board shall then appoint a committee of three (3) members of said Board, of which he may be one, to take up the case and decide it under the adopted AGREEMENT. The said committee shall embody their decision in a written paper, which shall be signed by each Arbitrator.

The chairman shall then announce the decision of the committee and shall collect the five dollars ($5.00) and necessary expenses for each Arbitrator from the loser, or his representative, and pay over to each Arbitrator his share of same.

BOARDS OF ARBITRATION

Appointed by the

National Wholesale Grocers' Association and the National Canned Goods and Dried Fruit Brokers' Association.

as endorsed by the

NATIONAL CANNERS' ASSOCIATION

In Connection With the National Uniform Plan of Arbitration.

BOSTON, MASS.

National Wholesale Grocers' Association.

George B. Wason, Chairman.....The Wason Co.
Austin L. Baker.....Eldridge, Baker & Co.
Frank Bott.....The Twitchell-Champlin Co., Portland

National C. G. & D. F. Brokers' Association.

John Chany.....
Frank B. Priest.....The J. K. Armsby Co.
W. R. Conover.....Clemmer & Conover

CHICAGO, ILL.

National Wholesale Grocers' Association.

Robert J. Roulston, Chairman.....McNeill & Higgins Co.
W. E. Stearns.....Reid, Murdoch & Co.
C. H. Wilcox.....Sprague, Warner & Co.

National C. G. & D. F. Brokers' Association.

W. H. Nicholls.....W. H. Nicholls & Co.
T. J. O'Bryne.....T. J. O'Bryne & Co.
Henry Colberg.....

CINCINNATI, OHIO.

National Grocers' Association.

R. B. Henley, Chairman.....R. B. Henley & Co.
H. J. Esterman.....Esterman-Verkamp-Murphy Co.
Edward Flach.....Flach Bros. Grocery Co.

National Brokers' Association.

Ed. T. Klum.....Ed. T. Klum
H. B. Perlee.....H. B. Perlee Brokerage Co.
W. R. Chace.....W. R. Chace

CLEVELAND, OHIO.

National Grocers' Association.

Lyman F. Narten, Chairman.....The Weidman Co.
Frank C. Wagner.....Higgins-Babcock-Hurd Co.
George A. Jones.....The William Edwards Co.

National Brokers' Association.

B. W. Housum.....The Housum-Grace Co.
A. G. Gibson.....A. G. Gibson & Co.
Paul E. Kroehle.....Paul E. Kroehle Co.

DENVER, COLO.

National Wholesale Grocers' Association.

Charles Hatfield, Chairman.....The C. S. Morey Merc. Co.
C. E. Cowell.....The Struby-Estabrook Merc. Co.
P. S. Hessler.....The P. S. Hessler Merc. Co.

National C. G. & D. F. Brokers' Association.

W. S. Hurd.....C. R. Hurd Brokerage Co.
A. J. Nicholls.....A. J. Nicholls Co.
W. N. W. Blayney.....

DETROIT, MICH.

National Grocers' Association.

S. J. Campbell, Chairman.....Lee & Cady
E. A. Elliott.....C. Elliott & Co.
Matthew Hannon.....Michigan Grocery Co.

National Brokers' Association.

F. E. Bowen.....Floyd E. Bowen & Co.
James Baldwin.....Baldwin & Squier
Herbert Smith.....F. B. Neuhoff Co.

INDIANAPOLIS, IND.

National Grocers' Association.

Ames W. Reagen, Chairman.....J. C. Perry & Co.
John C. Smith.....Indianapolis Fancy Grocery Co.
Roy L. Davidson.....M. O'Connor & Co.

Boards of Arbitration—Continued.

National Brokers' Association.

Eugene Larger.....Bunning-Larger Co.
Harry A. Angell.....Harry C. Gilbert Co.
Frederick Wingate .....Frederick Wingate

JACKSONVILLE, FLA.

National Grocers' Association.

John Ball, Chairman.....Consolidated Grocery Co.
C. W. Bartleson.....W. C. Bartleson Co.
H. C. Van Horn.....Baker & Holmes Co.

National Brokers' Association.

To be appointed later.

KANSAS CITY, MO.

National Wholesale Grocers' Association.

J. C. Lester, Chairman.....The Ridenour-Baker Grocer Co.
O. V. Wilson.....The Ryley-Wilson Grocery Co.
F. C. Johnson.....The Kawmo Wholesale Grocery Co.

National C. G. & D. F. Brokers' Association

Henry Flarsheim.....Seavey & Flarsheim
Boyd W. Harwood.....Gabel-Johnson-Harwood Brokerage Co.
L. R. Bolles.....Goodlett & Bolles

LOS ANGELES, CAL.

National Grocers' Association.

John Krafft, Chairman.....Haas, Baruch & Co.
Victor H. Tuttle.....R. L. Craig & Co.
L. C. Norris.....Stetson-Barrett & Co.

National Brokers' Association.

Roth Hamilton.....Hamilton & Menderson
F. W. Stith.....F. W. Stith Company
O. B. Franz.....Lee-Franz Brokerage Co.

MEMPHIS, TENN.

National Grocers' Association.

W. C. Early, Chairman.....W. C. Early Co.
Joseph H. Stewart.....Stewart-Gwynne Co.
S. H. Phillips.....Shanks, Phillips & Co.

National Brokers' Association.

To be appointed later.

NEW YORK, N. Y.

National Wholesale Grocers' Association.

W. B. Timms, Chairman.....Austin, Nichols & Co.
Sig Seeman.....Seeman Bros.
Philip C. Staib.....Koenig & Schuster

Boards of Arbitration—Continued.

National C. G. & D. F. Brokers' Association.

W. D. Breaker.....U. H. Dudley & Co.
A. L. North.....North & Dalzell
F. A. Aplin.....J. K. Armsby Co.

NEW ORLEANS, LA.

National Wholesale Grocers' Association.

Albert Mackie, Chairman.....Albert Mackie Grocery Co., Ltd.
W. L. Saxon.....The Smith Bros. Co., Ltd.
H. T. Cottam.....The H. T. Cottam Co., Ltd.

National C. G. & D. F. Brokers' Association.

D. R. Graham.....Graham-Boswell Co.
Fred Miller.....W. A. Gordon Co.
Tatman Thompson.....Tatman Thompson Co.

OKLAHOMA CITY, OKLA.

National Grocers' Association.

J. T. Robinson, Chairman.....Carroll, Brough & Robinson
C. E. Vaneleef.....Ridenour-Baker Merc. Co.
O. D. Halsell.....Williamson-Halsell-Frazier Co.

National Brokers' Association.

W. M. Gillespie.....Meinrath Brokerage Co.
J. R. Russell.....Russell Brokerage Co.
W. T. Love.....Oklahoma Commerce Co.

OMAHA, NEB.

National Wholesale Grocers' Association.

John S. Brady, Chairman.....McCord-Brady Co.
Charles H. Pickens.....Paxton & Gallagher Co.
R. B. Comstock.....Allen Bros. & Co.

National C. G. & D. F. Brokers' Association.

J. P. Fallon.....Seavey & Flarsheim
C. B. Shackleford.....
H. S. Sussmann.....Meinrath Brokerage Co.

PEORIA, ILL.

National Grocers' Association.

John Riggs, Chairman.....Oakford & Fahnestock
Milo E. Reeve.....John McCoy Co.
Alex Furst.....Jobst, Bethard Co.

National Brokers' Association.

G. R. Garrettson.....Jones Brothers
Joseph Keevers.....L. H. Lyford Co.
C. A. Hoxsie.....C. A. Hoxsie & Co.

Boards of Arbitration—Continued.

PHILADELPHIA, PENN.

National Grocers' Association.

Thomas Roberts, Jr., Chairman.....Thomas Roberts & Co.
F. B. Reeves, Jr.....Reeves-Purvin & Co.
William C. Halpen.....Halpen-Green Co.

National Brokers' Association.

Charles Roberts.....Jessup & Roberts
F. B. Bonstedt.....W. G. Bonstedt & Co.
John J. Hallowell.....T. A. James & Co., Inc.

PITTSBURGH, PA.

National Wholesale Grocers' Association.

D. C. Shaw, Chairman.....D. C. Shaw & Co.
Thomas C. Jenkins.....Thomas C. Jenkins
James A. McAteer.....James A. McAteer & Sons

National C. G. & D. F. Brokers' Association.

George A. Buse.....Buse & Caldwell
Harry W. Dunlap.....
E. T. Shantz.....

PORTLAND, ORE.

National Wholesale Grocers' Association.

Frank A. Spencer, Chairman.....Allen & Lewis
Louis Lang.....Lang & Co.
J. T. Brumfield.....Mason, Ehrman & Co.

National C. G. & D. F. Brokers' Association.

H. M. Haller.....Kelley, Clark Co.
F. W. Ariss.....Ariss, Campbell & Gault
Richard Adams.....Parrott & Co.

RICHMOND, VA.

National Grocers' Association.

Peyton Grymes, Chairman.....Stokes-Grymes Grocery Co.
Clarence D. Coleman.....Spencer-Nunnamaker Co.
Isaac B. Davenport.....Christian & Winfree Co.

National Brokers' Association.

Robert M. Smith.....Robert M. Smith & Co.
John Adam.....John Adam
Sanford Fleming.....T. S. Southgate & Co.

SAN FRANCISCO, CAL.

National Wholesale Grocers' Association.

Victor H. Tuttle, Chairman.....R. L. Craig & Co., Los Angeles
S. Sussman.....Sussman, Wormser & Co.
Frank B. Peterson.....Frank B. Peterson & Co.

Boards of Arbitration—Continued.

National C. G. & D. F. Brokers' Association.

Walter M. Field.....
Oscar Hoffman.....Hoffman & Greenlee
Harry C. Taft.....Taft & Suydam

SEATTLE, WASH.

National Wholesale Grocers' Association.

James S. Goldsmith, Chairman.....Schwabacher Bros. & Co.
J. C. Lang.....National Grocer Co.
F. C. Sylvester.....Sylvester Bros. Co.

National C. G. & D. F. Brokers' Association.

C. H. Clarke.....Kelley-Clarke Co.
George Burrington.....Burrington-Burton Co.
George L. F. Gault.....Ariss, Campbell & Gault

ST. LOUIS, MO.

National Wholesale Grocers' Association.

E. G. Scudder, Chairman.....The Scudder-Gale Grocer Co.
George A. Roth.....Adam Roth Grocer Co.
Warren Goddard.....The Goddard Grocer Co.

National C. G. & D. F. Brokers' Association.

Joseph N. Gettys.....Ford & Doan
Louis Rosen.....Rosen-Reichardt Brokerage Co.
Edward L. Stanton.....E. L. Stanton & Co.

ST. PAUL-MINNEAPOLIS, MINN.

National Grocers' Association.

E. O. Harmeguies, Chairman.....Griggs, Cooper & Co.
Lullus Quinan.....Foley Bros. & Kelly
George C. Pettigrew.....George R. Newell Co.

National Brokers' Association.

Albert Hall.....Emerson & Hall
F. S. Abernathy.....F. S. Abernathy & Co.
T. J. Preece.....T. J. Preece Co.

TOLEDO, OHIO.

National Grocers' Association.

George S. Harnit, Chairman.....Harnit & Hewitt Co.
A. E. Overmyer.....Overmyer Co.
Norman Meyer.....R. A. Bartley

National Brokers' Association.

Harry C. Hassett.....Harry C. Hassett
George E. Bell.....George E. Bell
J. W. Thatcher.....J. W. Thatcher

*Deceased.

CHAPTER LXV.

UNCLASSIFIED INFORMATION.

The famous food inspection decision made by the National Board of Commissioners in interpretation of the Act of June 30, 1906 (known as "The Pure Food Act"), in so far as it especially applies to canned foods, is called F. I. D. 144. I copy from the National Canners' Association Bulletin No. 2, of date June 12, 1912, as follows:

FOOD INSPECTION DECISION 144.

The text of this decision is as follows:

CANNED GOODS: USE OF WATER, BRINE, SYRUP, SAUCE AND SIMILAR SUBSTANCES IN THE PREPARATION THEREOF.

The can in canned food products serves not only as a container but as an index of the quantity of food therein. It should be as full of food as is practicable for packing and processing without injuring the quality or appearance of the contents. Some food products may be canned without the addition of any other substances whatsoever—for example, tomatoes. The addition of water in such instances is deemed adulteration. Other foods may require the addition of water, brine, sugar or syrup, either to combine with the food for its proper preparation or for the purpose of sterilization—for instance, peas. In this case the can should be packed as full as practicable with the peas and should contain only sufficient liquor to fill the interstices and cover the product.

Canned foods, therefore, will be deemed to be adulterated if they are found to contain water, brine, syrup, sauce, or similar substances in excess of the amount necessary for their proper preparation and sterilization.

It has come to the notice of the department that pulp prepared from trimmings, cores and other waste material is sometimes added to canned tomatoes. It is the opinion of the board that pulp is not a normal ingredient of canned tomatoes, and such addition is therefore adulteration. It is the further opinion of the board that the addition of tomato juice in excess of the amount present in the tomatoes used is adulteration—that is, if in the canning of a lot of tomatoes more juice be added than is present in that lot, the same will be considered an adulteration.

Approved: (Signed) R. E. DOOLITTLE,
JAMES WILSON, A. S. MITCHELL,
Secretary of Agriculture, Board of Food and Drug Inspection."
Washington, D. C., May 22, 1912.

USE OF COPPER SALTS IN THE GREENING OF FOODS.

It is provided in regulation 15 of the Food and Drugs Act that the Secretary of Agriculture shall determine by chemical or other examination those substances which are permitted or inhabited in food products; that he shall determine from time to time the principles which shall guide the use of colors, preservatives, and other substances added to foods; and that, when the findings and determinations of the Secretary of Agriculture are approved by the Secretary of the Treasury and the Secretary of Commerce and Labor, the principles so established shall become a part of the rules and regulations for the enforcement of the Food and Drugs Act.

The law provides that no food or food product intended for interstate commerce, nor any food or food product manufactured or sold in the District of Columbia or in any Territory of the United States, or for foreign commerce, except as therinafter provided, shall contain substances which lessen the wholesomeness or which add any deleterious properties thereto. It has been determind that no drug, chemical, or harmful or deleterious dye or preservative may be used.

Although the canners of the United States have uniformly refrained from the use of copper salts as a dye or coloring matter, yet vegetables greened with copper salts packed in other countries are imported and placed in competition with the domestic product. Therefore the question of the entry of such vegetables became at once, after the passage of the food and drugs act, the subject of consideration by those charged with the enforcement of the law. In a decision of the Board of Food and Drug Inspection issued some six months after the law became effective it is stated: "The question of the entry into the United States of vegetables greened with copper salts has not been finally determined. Pending the determination and decision of this matter by the Secretary of Agriculture, all vegetables greened with copper salts which do not contain an exeessive amount of copper will be admitted to entry if the label bears a statement that sulphate of copper or other copper salts have been used."

Thereafter, by subsequent decisions of the three Secretaries. issued May 7th, 1908, and December 26, 1908, right to entry into the United States was allowed to vegetables greened with copper salt, "but which do not contain an excessive amount of copper and which are otherwise suitable for food," provided the goods were labeled as above.

It will be noted that all reference made to the use of copper salts in connection with canned vegetables in the above quoted decisions pertains solely to those goods packed abroad and seeking entry into the United States. There was no call for a ruling on this point with reference to vegetables packed in the United States and consequently the attention of the Department of Agriculture and its decisions were directed exclusively to the foreign importations. The subject, however, was of grave importance to the domestic packer, independent of the question of meeting competition; he had more at stake than the loss of sales which might be occasioned by the public preference for the highly colored foreign product. In short, the desideratum was to establish confidence and maintain the credit of canned foods as a class and to that end have the law strictly enforced as to all canned foods, whether packed at home or abroad to accomplish this end, the National Canners' Association has strenuously exerted its efforts, and it is a source of no little gratification that on July 31, 1912, the Board of Food and Drug Inspection issued a decision on that subject prohibiting the use of copper salts in the greening of foods. That decision states as follows:

"The Food and Drugs Act of June 30, 1906, provides that a food is adulterated 'if it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health.' The act also provides that a food is adulterated 'if it be * * * colored * * * in a manner whereby damage or inferiority is concealed." It is apparent from the findings of the referee board that all foods greened with copper salts are positively adulterated under the first above quoted provision of the law, and that in certain cases foods may be adulterated under the second above quoted provision.

The Secretary of Agriculture, therefore, will regard as adulterated under the Food and Drugs Act foods greened with copper salts which, on and after January 1, 1913, are offered for entry into the United States, or are manufactured or offered for sale in the District of Columbia or in the Territories, or are shipped in interstate commerce.

MONTEZUMA
BRAND
TOMATOES
FOR BREAKFAST OR SUPPER.
DRAIN THE CONTENTS OF THE CAN. DUST THE TOMATOES WITH SALT, PEPPER, SUGAR AND A LITTLE FLOUR. PUT A LARGE SPOONFUL OF BUTTER IN A FRYING PAN; WHEN HOT, PUT IN THE TOMATOES AND LET BROWN. REMOVE TO HOT DISH, THEN ADD A LITTLE OF THE JUICE AND A TEA CUP OF GOOD CREAM TO 1/2 BUTTER; LET BOIL UP AND POUR ON THE TOMATOES! DELICIOUS.
MONTEZUMA
BRAND
TOMATOES
PACKED BY
THE MEXICAN PACKING CO.,
MEXICO CITY.

THIS LABEL IS A REPRODUCTION OF THE ONE SUBMITTED BY THE NATIONAL CANNERS' ASSOCIATION AS A SAMPLE, FOR PROPER WORDING ON TOMATO LABELS

SAMPLE LABEL, SUBMITTED BY NATIONAL CANNERS' ASSOCIATION
TO PACKERS OF SWEET CORN FOR PROPER WORDING

All previous food and inspection decisions on the subject of greening foods with copper salts are amended accordingly."

We believe this latter decision, in its benefit to the canning industry, ranks alongside of F. I. D. 144, and is a long step in the direction of placing canned foods in their proper aspect before the public eye. We are glad to have been of assistance in this and to be able to felicitate the canners of the United States upon the results attained.

CHAPTER LXVI.

HOW TO ROUTE AND SHIP CANNED FOODS.

From interior points where water transportation is not available shipments have not the advantage of water competitive rates. Then rates as established now by law are the same by all rail routes. From points in the East minimum car loads are 36,000 pounds, a lower rate being made on that quantity shipped to one party from one shipper and on one bill of lading. In less than carloads the rate is higher.

Where lake and rail or ocean and rail or river and rail navigation is available a reduced rate can be had which is conceded to such combined routes by the Interstate Commerce Commission of from 3 to 5 cents per hundred lower than all-rail rates.

The same stipulations of difference in rate between carload and less than carload shipments are made by the part water routes.

From the Pacific Coast shipments can be made all rail, or around Cape Horn or via Isthmus of Panama route. The carload weight on such shipments is fixed at a minimum of 40,000 pounds.

On all water coast shipments or river shipments, no carload stipulations are made unless the goods are to go partly by rail on a through rate.

From New York, Massachusetts, New Jersey, Delaware, Maine, Maryland, Pennsylvania, New Hampshire, Vermont, Rhode Island, rates to the West based on lake and rail or ocean and rail shipments, can be secured nearly all the year round to Chicago, Milwaukee and nearly all other points West, for when the navigation of the lakes closes about November 15th or sooner, a similar service can be continued by the ocean and rail routes which never or seldom freeze up or stop and are open for service all the year round.

I would suggest the following routing and recommend the following routes and lines, viz.:

All rail from the East, New York Central, Baltimore and Ohio, Pennsylvania, Chesapeake and Ohio.

Lake and rail from the East, Western Transit Co., Anchor Line.

Ocean and rail from the East, Norfolk and Western, Kanawha Dispatch.

All rail from the West, Southern Pacific.

All rail from the Northwest, Northern Pacific.

All rail from the South, Illinois Central, Southern Railway Co., Louisville and Nashville.

Ocean and rail from the West, Southern Pacific Steamer.

At present a rate via ocean to New York from Pacific Coast points can be had of 45 cents per hundred pounds, as opposed to 70 cents per hundred pounds all rail. This is of not much advantage to interior shippers, as the rail route from New York nearly or quite makes up the difference.

All-rail shipments are, of course, the quickest, and the goods being handled but once, usually come through in somewhat better condition, but this is not very important, as the lake and ocean routes are now handling freights very carefully. If one is in a hurry for goods or if the goods are delicate or fragile, it would possibly be best to ship all rail and pay the higher rate, especially if the goods are to come through in carload quantities. If in less than carloads the difference or advantage either in time or in handling would not be worth the difference in a higher freight rate, as opposed to the part water lines.

TO ESTIMATE MINIMUM CARLOADS.

Weights of canned foods, carloads, Eastern roads, 36,000 pounds.

Weights of canned foods, carloads, Pacific Coast roads, 40,000 pounds.

No. 1	Salmon, 4 dozen; weight per case....	67 Lbs.
No. ½	Salmon, 4 dozen; weight per case....	38 Lbs.
No. 2½	Fruits, 2 dozen; weight per case.....	65 Lbs.
No. 2	Fruits, 2 dozen; weight per case.....	43 Lbs.
No. 3	Fruits, 2 dozen; weight per case.....	67 Lbs.
No. 8	Fruits, 1 dozen; weight per case.....	100 Lbs.
No. 2	Vegetables, 2 dozen; weight per case.	43 Lbs.
No. 2½	Vegetables, 2 dozen; weight per case.	65 Lbs.
No. 3	Vegetables, 2 dozen; weight per case.	67 Lbs.
No.10	Vegetables, 1 dozen; weight per case.	100 Lbs.

It is quite probable that the opening of the Isthmus or Panama Canal will make an important change in freight rates in both or all directions, as the Mississippi River route will be utilized in connection with the ocean route then.

Refrigerator car shipments to protect from cold in the winter time can usually be had without additional charge as many refrigerator or lined cars are then idle, being used actively only in hot weather.

Atlantic Coast shipments can, of course, be made by coast lines, and shipments to the interior made at cheaper rates than by all-rail.

CHAPTER LXVII.

LINKS IN THE CHAIN OF DISTRIBUTION.

(Canner—Broker—Wholesale Grocer—Retail Grocer.)

Address of John A. Lee made before the annual convention of the National Canners' Association, at Baltimore, Md., Wednesday, February 4th, 1914.

Mr. President and Gentlemen of the Convention:

Everyone likes to know what his rights and privileges are and where the boundaries of his field of achievement are located.

If he is a fair and just man he wants to avoid intruding upon others, and if he is a self-respecting man he dislikes to have others trespassing upon him.

In order to define some of these rights and privileges, and to fix or locate some of these boundaries in the great co-operative and essentially helpful field of the Art of Commerce, I am going to talk to you briefly about "The Links in the Chain of Distribution." I will of course confine the discourse to the consideration of food distribution, as that is what we are all interested in.

There are only four links in our chain of distribution, the canner, the broker, the wholesaler and the retailer.

It has been suggested to me that the farmer or producer is a link in the chain, but he is not, and it has also been suggested to me that the consumer is a link, but that is also an error.

Neither consumer or producer can consistently be called distributors, and are therefore not parts of the chain of distribution.

The producer at one end of the chain and the consumer at the other end are even more important than links, because they are the great eternal pillars of production and existence, dependent one upon the other, and connected by the chain of distribution.

Some claim that the railroads are links in the chain, but I contend and maintain that they are not. They are merely facilities, and means employed in distribution, and no more an integral part of the great commercial chain than would be a ship, or a wagon, or a caravan of camels, or a drove of burros, or a handcart, or any other means to promote the ends of distribution.

A chain is only as strong as its weakest link. I claim that the present system of distribution, by means of this chain of four links, is so strong in all its parts that it cannot be broken, or changed.

The law of commerce, like the law of gravity, is immutable, and distribution, like water, seeks the easiest and least obstructed channel.

Let's analyze the strength of these links and learn what tests they have withstood.

The canner, the first link, has for his mission the conservation and preparation of the products of the soil and waters. His is a glorious work and, if he is conscientious in the performance of his work, constantly striving toward merit and economy, keeping always before his vision and in his ambition the improvement and perfection of his output; his link will ever be looked upon as the strongest of all.

If he will loyally support the established system, he will find it in the future as in the past, the safest, best and cheapest method, based upon tried and tested economies of co-operation.

This link, the canner, has been tested in the school of adversity, and tried in the fierce assaults of defamation, slander and injustice, but the clouds of ignorance are being scattered by the bright rays of truth and enlightenment, thank God! And the canner is coming into the honor and appreciation due him. The value of his services is gaining recognition, and the work of his brain and hands is meeting and meriting world-wide sympathy and approval.

Occasionally there is found a canner who, through inexperience or carelessness, or incompetence, or indifference, packs and puts on the market qualities which are so poor that they do discredit to the industry. He don't usually belong to the National Canners' Association, nor is he one of the links in the chain of distribution. He is what students of Darwins theory of evolution would call "the missing link."

The second link in the chain is the broker, one of the humblest of whom I am. It is his mission to bring the canner and the wholesaler together upon terms of just and fair contract and agreement, and not to consider that the brokerage paid him places him under undue obligation to either party, because it is really a part of the cost of the goods, and is paid by the ultimate consumer.

Being paid only for actual results, he is by far the most economical of all sales agencies, and does his part as a link in the chain so economically and so well that his position is unassailable, and economists can find no substitute for him.

He has been repeatedly denounced as a burden upon commerce and a tax upon distribution, but he lives on and on exulting in his usefulness, while his enemies and detractors have disappeared, and the places which knew them once know them no more, while the broker, like Tennyson's brook, goes on forever.

I believe that all canned food brokers, on account of their industry, their humility, their poverty and their piety, will, when they die, go direct to the highest heaven, by the through "Paradise Limited," stopping briefly only at the stars of the first magnitude for supplies of radium and electricity.

There are some bad brokers—not many—some—now and then one. They create discord between buyer and seller by carelessness and misrepresentation. That kind don't belong to the National Canned

Foods and Dried Fruit Brokers' Association. They are stumbling blocks in the path of distribution and are soon pushed aside.

The third link in this splendid chain of distribution is the wholesale grocer. It is his mission to act as banker to the entire system.

He takes the canner's product and pays cash for it. He ships it in carload lots, thereby saving a large amount of freight, and sells it to the retail grocer on credit. He practices every art of commerce and all the skill of merchandising, in order to render his service effective and economical. He builds great warehouses and brings the railroad tracks into them, and locates them beside the docks that ships may unload their cargoes into them. He equips them with powerful elevators, and with spiral chutes, endless conveyors, and patent slides; and uses the skill of the nations inventive genius to cheapen the cost of handling canned foods and other foods. He employs armies of salesmen and trains them to induce the retail grocers to discriminate as to qualities. He employs expert buyers, who carefully select that which is good and refuse that which is bad. He takes chances and risks not only in the extension of credits, but in buying canned foods on pro rata contracts and guaranteeing one hundred per cent. delivery to his customers. He accepts swell guarantees that are limited and gives unlimited guarantees to the retail grocers.

He pushes, promotes and advertises the products of the canners, and contributes liberally to their publicity fund and work, but if he happens to think that the wrong quality has been shipped, and rejects a carload or two, he is promptly consigned to the kitchen of the abode of eternal damnation, and given the position of fireman.

I heard of a canner who, when a wholesale grocer rejected a car of his goods, wrote the wholesaler and told him to go to hell! Then they arbitrated the rejection and the wholesale grocer won. The canner then wrote another letter to the wholesale grocer and said: "I wrote you to go to hell! Don't go! Go somewhere else! I am thinking I might go there myself, and I don't want to meet you."

Wholesale grocers are warm friends to the canning industry, and are indispensable as allies and coworkers. The chain of distribution would be almost useless without this strong link.

Their great national association stands firmly in its faith and confidence in the progress and future of the canning industry. The wholesale grocer's friendship must not be undervalued, for he has been a potent friend to the canning industry from the day of its beginning to the present time. Old friends are the best! Hold fast to them!

There are some bad wholesale grocers. We now and then find one who reclaims unjustly, or discounts unfairly, or tries to evade his contracts.

That kind don't belong to the National Wholesale Grocers' Association, and is fast falling out of the front rank and off the firing line, and their places are being filled by merchants who are honorable and fair, and who strictly adhere to high principles.

May the day never come, Mr. President, and conditions never arise when the canner and the wholesale grocer have to part company, for a close alliance is of inestimable advantage to both.

At last we come, Mr. President, to the fourth and last link in the chain of distribution, the retail grocer, who stands with one hand clasping that of the consumer, as the very living and life purveyor of the people, while his other hand is extended in friendly co-operation and helpfulness to the canner, the broker and the wholesale grocer, the other links in the chain of distribution. He is the last link in the chain, and his is the last word in the argument.

His loyalty and friendship are freely bestowed upon his co-workers and they have his faithful support and co-operation, as long as the service they render is honest and economical and as good as he can obtain—but no longer! His loyalty is first to the consumers, his customers, who rely upon his judgment and ability for the health and welfare of themselves and their families.

No one in all mercantile life works harder than the retail grocer, long hours, exacting service, petty sales, unreasonable requirements, and fierce competition surround and beset him, and his reward is small.

Very few retail grocers get rich and great numbers of them live humbly and die poor.

The retail grocer is frequently denounced by impractical reformers, robbed by debtors whose families he has fed in times of distress, burdened with taxation, hounded by municipal grafters, and bedeviled by promoters of impractical schemes for selling unmeritorious goods. Yet he patiently moves onward, getting up long before day, and working until late at night, trying thereby to give a full measure of good service to his patrons.

In the aggregate he dispenses more practical charity than all the organized charities in the world, and the orphans' cry and the widows' appeal are never made to him in vain. I have stood in the retail grocer's store many, many times, when I was a commercial traveler, and have repeatedly seen the little baskets of the poor filled with something to eat, for which no payment was ever received or expected. Nor does the retail grocer send for the reporter of the Associated Press to tell him of his beneficence, which frequently keeps him poor.

The reformers or special writers who denounce the rtail grocer of the United States as an unessential middleman, to whom is attributable

the high cost of living, should be ignored and forgiven. They are mentally and morally irresponsible, and remind me of Thompson's historical colt which swam the river in order to drink out of a stagnant horse pond, and of the man who sawed the limb off between himself and the body of the tree, and of the famous bull which tried to butt the locomotive off the track, and of a verse from the Bible which reads "Though thou shouldst bray a fool in a mortar, among wheat, with a pestle, yet will not his foolishness depart from him."

There has been steady progress, but there is still room for improvement in the retail grocery business. It is a business which is entered too easily, and the exit is too frequent and disastrous. There should be a system of apprenticeship and examinations for competency.

The food purveyors of the United States are the guardians of the public health, as well as of the public appetite and should know something about the chemistry and manufacture of foods. Many of them do! All should!

We have a national department of commerce now; why not have schools of commerce, conducted by the State as well as agricultural colleges?

In conclusion, Mr. President, having described the links in the great chain of distribution, let's briefly speak of it as a whole.

It represents the spirit of commercial co-operation and mutual helpfulness for promoting good public service, expressed by the words "each for all and all for each."

It is typical of that forbearance and consideration, that tolerance and respect, which prompts these great co-operative forces to avoid intruding and trespassing upon the privileges and rights of each other.

It is emblematical of the power of co-operative intelligence over individual effort and of organized effort over undirected or misdirected force.

It represents the highest type of public service, directed and controlled by the spirit of American institutions, and it typifies that merit and that service which is described in the Book of Proverbs in these words:

"Seest thou a man diligent in his business, he shall stand before kings, he shall not stand before mean men."

CHAPTER LXVIII.

CANNED APRICOTS.

The apricot is an ancient fruit of the order of plums and is said to have originated in Armenia. This, however, is doubtless a fact attributable to its botanical name, Prunes Armenica.

It is a delicious fruit, stone bearing like plums and prunes, but resembling in some respects a peach. It grows in favored localities to a large size, sometimes being almost as large as the peach, which it in some respects resembles in appearance and flavor. The apricot is grown and cultivated to a greater extent and perfection in California than elsewhere in the world, and is extensively grown and used for canning in that State as well as elsewhere.

The chief varieties used for drying and canning are Mohr Park, Blenheim, and Royal.

The apricot has not as much natural sweetness as the peach as it more closely approaches the plum in acidity and requires a heavy syrup to render it palatable.

This fruit has an aromatic or fragrant flavor or taste which distinguishes it from nearly every other fruit known, which is considered by many as most delightfully delicious. Others hold that this very individuality of bouquet or flavor palls upon the taste and soon surfeits those who eat it regularly.

It is extensively cultivated and canned in California and is put in the regular No. 2½ can pitted and halved, but not peeled, also in No. 10 cans in the same style. It is packed in Pie, Seconds, Standard, Special Extra and Extra grades, sometimes being packed in No. 1 cans by some canners in heavy syrup.

The apricot makes a fine pie and is therefore largely used for that purpose. However, it is a fine dessert, and its use canned is rapidly growing.

Fine apricots are canned to some extent peeled, and in that form are regarded as a most superb dessert for the tea table.

In buying canned apricots examine an average number of cans carefully to see whether the fruit has been canned ripe, being then a bright yellow color, or whether it has been picked green and allowed to ripen, when it is always of a greenish color and insipid flavor.

When unripe it is hard and tough and devoid of the distinguishing or individual fragrance of flavor which characterizes the ripe fruit.

The fruit is sometimes weather or insect specked and should be inspected for such imperfection.

CHAPTER LXIX.

CANNED SUCCOTASH.

This article is purely an American preparation, its name being derived from a North American Indian word meaning a mixture of green corn and green lima beans, or one of green corn and green stringless beans. The Indians, however, had another name for green corn and green stringless beans, mixed, for they called it "Tossimanony."

Both these preparations are canned and both are called succotash. As generally understood, however, succotash means commercially a preparation of green corn and either green or soaked lima beans or pole beans.

The combination of green corn with green stringless beans, when cooked with bacon, is an excellent article of food and should be more extensively sold and known.

Succotash is packed in No. 2 and in No. 10 cans. The best quality is made of tender green corn and green lima beans and can be branded Succotash under the law. When composed in part of dried or California lima beans, it must be labeled "with dried beans" in order to comply with the various pure food laws.

Maine packers can a very excellent succotash of green corn and what they call pole beans,—long, round, fat beans. They claim that the beans are green and do not label their product "with dried beans." These beans are, however, not green in color, and are in appearance very suggestive of dried beans.

The ungraded green lima beans are excellent for succotash and should be about 25 per cent of the whole used to 75 per cent. of corn.

Buying and Selling Points.—Look carefully to the quality of the corn in the cans. Lima beans are usually a late crop and the late crop of corn used to make this combination is frequently tough, fibrous, and poor, though the beans may be good. A good green corn, dry bean succotash, if the corn is good, is superior to the green corn and green lima mixture if the corn is poor.

If you handle the green stringless beans and green corn combination, see that the beans are tender and stringless and that the corn is tender and young.

This combination is easier for the packer as the green stringless beans come just right in season to be packed with green corn. This article in both forms affords to wholesale and retail grocers a good margin of profit.

CHAPTER LXX.

NECTARINES, PRUNES, CURRANTS AND QUINCES.

THE NECTARINE.

This fruit has a common origin with the peach and is really a variety of peach. It is said that the tree of the nectarine will frequently reproduce peaches and vice versa.

It is a smooth skinned fruit and has not a downy surface like the peach.

There are a number of varieties of nectarines having different flavors and the fruit is grown almost solely on the Pacific Coast in the United States, though well known in other countries.

It is said that peaches and nectarines are sometimes found growing on the same tree.

It is not a popular or very salable fruit when canned, as it lacks size, color, style and appearance, but in flavor is highly regarded by many.

It is generaly canned like the apricot, unpeeled, but is sometimes peeled. It is a much smaller fruit than the peach and, in fact, is about the size of large plums, and by many is regarded as a variety of plum.

Points of merit of the canned nectarines are large and uniform size, bright color, ripe but firm condition of the fruit, and freedom from specks or insect stains on the skin, fruit processed not too heavily so as to loosen the skin. This fruit should be canned in at least 20 degrees of syrup, as it has much acidity of flavor. The canned article should be bought cautiously, as it is a slow seller.

PRUNES.

This excellent and prolific fruit is merely a variety or species of plums. A prune is a dried plum. There is a kind of plum, however, which is known as a prune plum, which is grown upon the Pacific Coast of the United States, a large, dark, meaty plum, fairly sweet, and this plum is used for canning. It is so sparsely used for that purpose, however, that in the commercial listing of the varieties of canned fruits it is seldom listed from the fact that prunes are so staple dried that people do not appreciate the fact that this fine plum is not a dried fruit afterward canned. Buyers should order it very sparingly, as it is a misunderstood and unappreciated product of the canner's art, although of superb value and fine rich flavor. It is judged in buying or selling as are other plums, as to fill of the can, meaty large size of fruit, the degree of syrup which should not be too sweet, and the firm retention of the shape of the fruit, rather than to be boiled or cooked too soft.

Dried prunes of fine quality are sometimes, in fact regularly, packed in tin cans, both in France and in the United States, but the cans are not hermetically sealed and are classified under dried fruits rather than under canned foods.

CURRANTS.

This fruit is of limited production. It is grown on a deciduous shrub and there are three varieties of currants, red, black and white. This fruit is generally used in the manufacture of jellies and jams and is not used in its natural state to any extent. It makes superb jellies and jams, having a very fine individuality of flavor most appetizing and relishable when served with meat in the form of jelly.

There are a few currants packed in cans on the Pacific Coast in syrup which are merely stemmed, blowed and processed. The red variety is generally used for that purpose.

This fruit is also canned in the East, usually in No. 10 size cans for the use of preserve and jelly makers. It is canned on the stem and stemmed. Some manufacturers claim that if currants are picked off the stem and processed in water they loose their flavor, therefore, some are canned on the stem for preservers' use.

When stemmed and blowed and hermetically sealed in cans in syrup, red currants make a fine tea table desert, or can be made into most excellent pies or tarts, but, as before stated, its use in this way is quite limited. The fruit is not very prolific or productive.

The canned fruit should be ripe red and of uniform size. The stems should be well removed and so should the blooms or blows, but this cannot be done with absolute perfection by any machine yet invented, without crushing the fruit, and the process is too tedious and expensive to be done by hand.

QUINCES.

This is quite an ancient fruit and has been known and cultivated for many centuries. It grows on a low, wide bunching shrub or small tree, and is a prolific fruit.

There are a number of species, some of which are inedible on account of excessive astringency, but the quince known and used for canning and preserving in this country is a large fruit and is regarded as most desirable for preserving. As ordinarily canned, even in syrup, quinces are not popular or salable, and they are chiefly used for making preserves.

For that reason this fruit is largely packed in No 10 cans in water, after being peeled, cored and quartered and then sealed and processed.

The fruit should be ripe when canned, carefully peeled and cored and processed just enough to keep it in the cans. A heavy cooking turns quinces red and that is very undesirable. The fruit should be bright and free from brown spots or specks.

CHAPTER LXXI.

CRANBERRIES, FIGS, LOGANBERRIES AND CRAB APPLES, SAUCES, JAMS, JELLIES AND FRUIT BUTTERS.

CRANBERRIES.

Cranberries are cultivated and grown chiefly in the Eastern part of the United States, in Massachusetts, New Jersey and elsewhere. They are grown on low or swampy ground on running vines, and are picked or gathered in September and October.

This fruit is very sour and is not used except in the form of cranberry sauce or jelly, and is, therefore, not canned at all in its natural state.

It is a very hardy berry and generally produces well.

It is chiefly marketed and shipped loose or bulk in barrels and the principal part of the crop is disposed of in that way.

Canners have not succeeded in popularizing canned cranberries, but improved methods of preparation and manufacture are slowly doing so.

Being almost devoid of natural sweetness, the cranberry requires the use of a large proportion of sugar to render it palatable.

The canned product is usually designated "cranberry sauce or preserved cranberries." Prepared with about an equal amount of fruit and sugar this fruit when canned makes a very fine relish to serve with fowl or meats or as a desert.

It is also prepared by pressing the juice from the fruit, straining out the hulls and making a jelly or "strained cranberry sauce." This process is held by some chefs and epicures to deprive the sauce of an individual relish of flavor possessed by the skin or hull of the fruit, a slightly bitter but not unpleasant aftertaste. Many of the finest caterers only serve cranberry sauce of the whole fruit unstrained, because of that fact.

Points of merit in canned preserved cranberries are a bright lively color. A dark color implies that overripe berries or unsound fruit has been used, this defect can also be detected by the flavor. Where the berries have been canned whole or of the unstrained fruit, unsound berries can be easily discovered by close inspection. Where the fruit

has been strained and is canned in the form of a jelly, only the tsate and color are left to judge by. If the preparation is in the form of an ugly motley colored fruit butter wherein the skins and all the fruit have been boiled into a pulp the preparation is unsalable and no one who has eyes or taste will buy it or offer it for sale, as it is most surely made from a lot of fruit carried too late in barrels or that has been spoiled by the weather.

FIGS.

This fruit is very ancient and is known throughout the world. In the dried form it is a very important article of commerce.

The canning of fresh or undried figs has been in vogue for many years in Europe and for some time in the United States, but has never attained large or important proportions.

Owing to the sensibility of fig trees to frost this fruit cannot be successfully produced except in the extreme southern parts of the United States, below about 32 degrees north latitude.

Fig culture is therefore confined to Florida, Mississippi, Louisiana, Texas and California.

The canning of fresh figs on account of the delicate and quickly perishable character of the fruit, must be done near the place of growth, and in the states previously named are located about the only canneries of figs in the United States.

It is the custom of canners to use a very heavy syrup to the fruit, but whether this is because it is essential to enable the delicate fruit to stand the processing or to counteract any other peculiarity, or because the fruit, somewhat insipid in its fresh state, needs a heavy syrup to give it flavor and character, or as is probable, because the first canners of the fruit used a heavy syrup, and others have followed the example, I do not know.

Canned fresh figs, as prepared in the United States, are delicious, but are rather a preserve than otherwise, and so rich that some find them cloying. This may account, to some extent for the rather restricted sale attained, though it is the case that the limited growth and uncertainty of the crop is a still more important factor, for about all the canned figs produced are readily sold and the supply is frequently short of the demand.

Figs are packed whole in the cans and the small stem of the fruit is not removed. In eating the figs can, therefore, if desired, be held by the stem as is done when the fruit is served direct from the tree.

A clear syrup, figs not black or very dark, fruit of uniform size, well filled, fruit free from evidences of unsoundness or decay, and tender but firm are conditions of merit which should be considered.

CRAB APPLES.

The crab apple is a wild apple in its original state, from which all our cultivated apples have been evolved. The Siberian crab apple is, however, a distinct variety which, when selected at the proper stage and canned in a syrup of about 20 degrees, is regarded by many, especially by Germans, as a great delicacy. They use these crab apples as relishes to serve with fowl or meats. The sale, of course, is limited, but so is the supply, and it is usually exceeded by the demand.

It is customary to can these Siberian crab apples leaving on the stems, unpeeled and whole.

Uniformity of size, good syrup, well filled cans, stems on, processed enough to soften the fruit, but not enough to break the skin or mush the fruit, are the tests of quality. The taste should be agreeable though slightly bitter. There are some varieties of crab apples which are too bitter to be eaten and these should be looked out for and avoided.

LOGANBERRIES.

Within the past 15 or 20 years a new berry has appeared in the United States known as the Loganberry.

It is said to be a product of grafting the red raspberry on the blackberry and the cross known as the Loganberry partakes of the characteristics of each of those berries.

It is of a long and rather slim shape, somewhat like that of a mulberry and does not look either like a blackberry or raspberry.

It is of a dull red color, but has a very fine flavor seeming to have the size and meaty character of a cultivated blackberry combined with the fine, durable acidity and high fragrance and flavor of the Cuthbert red raspberry.

It is so far grown only on the Pacific Coast, and though it is now probably more largely produced and canned there than either raspberries or blackberries, the demand for canned loganberries far exceeds the supply.

The fruit has a most agreeable acidity of flavor and is said to make when so prepared a superb jelly.

Size, uniformity, freedom from stems and leaves, the fill of the can, freedom from dried up or decayed fruit are the points of merit in the canned article.

APPLE SAUCE.

This article is now quite extensively canned and has become a very popular article with city restaurants for serving at lunch.

For this purpose it is put extensively into No. 10 cans, well sweetened, spiced and carefully strained. Some is, of course, put in No. 2 cans, but not a great deal.

Housewives seem to want to make their own apple sauce, but the restaurants, hotels and institutions find that the canner is able to supply them with a better article than they can themselves make, and at a lower cost.

Points of merit are a can well filled with well sweetened apple sauce, nicely spiced, and of heavy consistency.

JAMS AND JELLIES.

The production of these goods is confined to a very few canneries. Most of the jams and jellies used in this country are packed in glass or pots, and are not hermetically sealed in cans, and as this is a book treating of canned foods, the subject is foreign to this book, except so far as the goods are hermetically sealed in cans, which is to only a very limited extent.

The California canneries can jelly regularly making it from pure fruit juice, and I have seen and used upon my table, black currant jelly canned in California that was not to be surpassed for delicious flavor and consistency. Clearness and flavor are the points of merit to inspect.

FRUIT BUTTERS.

These goods are generally distributed in wooden packages of all sizes in season and are not canned to any extent. They were formerly canned quite extensively by New York canners, but they were of such slow sale in cans that, but little is now produced.

CHAPTER LXXII.

CARROTS, TURNIPS, CUCUMBERS AND CAULIFLOWER.

Carrotts are canned in a very limited way, the demand and sale for them is very small, indeed. This vegetable can be kept when buried in the ground or in a cellar in dry earth so long and so well that canning of it, except for army or navy use is hardly necessary. When canned it is carefully cleaned, peeled and cut into cubes. Carrotts are used in a mixed vegetable combination that is canned in the United States, an article which has attained considerable sale.

TURNIPS.

This vegetable is a good winter keeper, and except for special purposes is not in sufficient demand to justify any degree of attention from canners.

Turnips are used in combination with other vegetables in a preparation of mixed vegetables which has attained some sale.

Turnips are carefully washed, pared and cut into small pieces and then canned and processed in the usual way.

CUCUMBERS.

Canned cucumbers may be designated as a specialty of small sale. They are carefully peeled, sliced and put in the cans, and then a very delicious and relishable dressing is put in the can before they are sealed and processed.

I know of but one firm (Baltimore) that specializes on canned cucumbers, and that firm seems to have a monopoly of the business.

I have noticed that too heavy a process or cook is apt to make canned cucumbers tough eating, by destroying with heat that natural crispness which is essential, but the canned cucumbers I have seen of recent years seem to have been quite well protected against that fault.

Cucumbers are packed in special sized cans. This article has great merit and should sell more largely.

CAULIFLOWER.

This is an article of splendid merit when canned, and the cooking it receives in processing the cans makes it perfectly ready for use by warming the can.

It is a vegetable which should be more generally canned and used. It is not at all troublesome to can and is promptly salable and the market is never well supplied with it. Only the head is used and must not be overprocessed until it turns soft or mushy in the can.

CHAPTER LXXIII.

HOW TO SPECULATE IN CANNED FOODS.

My advice is that which was given to the girl who was about to elope with an undesirable man, which was, "Don't!!"

Speculation in canned foods has a great many uncertainties and many disadvantages. However, some buyers make a profit by speculation and here is about the way they do it.

They study the crop statistics, which one can have sent to him by the Agricultural Department at Washington free of all charge.

Information as to the condition of crops and other matters are given therein.

They study the canning statistics, which are compiled each year, and then get all the inside or unrecorded information possible, the kind that is never published, but which is passed along by word of mouth and whispered or spoken quietly as it goes "down the line."

The speculator pumps the buyers and the brokers to learn about the stocks of the article which wholesalers are carrying as compared

SALMON STORED IN WAREHOUSE PREPARATORY TO LABELING FOR SHIPMENT

A SALMON CANNING KITCHEN NEAR ANACORTES, WASHINGTON

with previous years, and he enquires of salesmen and retailers as to stocks held by retail dealers.

He studies the market of past years and learns what the course of prices was. He then studies the money market, the conditions of employment, the bank clearings, the general business outlook and some other matters like carrying charges, storage, interest, etc., and finally confirms his judgment when made by putting up hypothetical conditions to buyers whom he knows to be wise and shrewd by suggesting that they buy the article speculatively, and listening to their views of approval or objection.

Being thus fortified, he either drops his intentions or wades boldly into the deep waters of speculation and buys heavily for a rise.

CHAPTER LXXIV.

SALSIFY AND CELERY.

SALSIFY.

This article sometimes called oyster plant, is canned in only a limited way, and is not really a desirable food product. It is too fibrous and tasteless to please, and has but but little nutritive value. It should be nicely peeled, cans well filled and cut up in small pieces.

CELERY.

This article does not can to advantage, though some of it is canned and used. The processing by heat takes away from it that delightful crispness which is a characteristic of the fresh celery.

The manufacture and use of canned celery is very limited.

CHAPTER LXXV.

MUSHROOMS.

This article has been extensively grown and canned in Europe for many, many years, and most of the canned mushrooms are still imported. The imported mushrooms are brought here in cans of about 16 gross ounces, and the mushrooms are most carefully sized and graded. The smaller sizes are very minute indeed, running as small as 200 to the can, and the grading by buyers is usually by count to the can, rather than by the French or foreign grading. Every particle of the mushroom is used, even the stalks are canned and graded as "hotel grade," used for slicing and garnishing.

The imported mushrooms are grown in caves or cellars and are bleached white usually, though the choicest unbleached, or of about a lemon color are considered to be of the best flavor; and the smallest

are not deemed as of as good flavor as the medium sized or more mature grade or size. The mushroom is a fungus and is really of but little edible desirability as to flavor or nutritive value, though it is largely produced and consumed.

In this country but little attention is given to this article. None scarcely are grown for canning, and all that are produced are sold in the markets to consumers.

There are several wild species of mushrooms or fungi which look like mushrooms and one or more of the varieties are poisonous. It is difficult for an unskilled person to tell the good from the poisonous varieties.

This circumstance has caused the consumption of mushrooms in the United States to remain very small, and has retarded the cultivation and production of them in this country for canning purposes.

Imported mushrooms in cans are absolutely free from risk, however, as they are not gathered wild, but are cultivated with great care and skill from seed that is known to be reliable and by people who have been trained to the work.

Points of merit are uniformity of size in the can. Buttons are regarded as more desirable than stems, and the finer qualities consist of buttons from which the stems have been closely trimmed. Freedom from black or brown spots or blemishes or from a brown color on the inner surface of the button or top of the mushrooms of the larger size, which designates them as old or too mature.

CHAPTER LXXVI.

BRUSSELS SPROUTS, ENDIVE, DANDELION AND KALE.

BRUSSELS SPROUTS.

Brussels sprouts have been cultivated for centuries and gets the name from the city of Brussels, a city of Belgium.

It is a vegetable that is very popular in Europe, and its popularity is growing in the United States.

It is canned in a very limited way and is but little known as a canned article, though it is desirable as a canned vegetable.

ENDIVE.

Endive is of several varieties or kinds. Its principal use is for salads. There is a long leaf kind and a curly leafed kind. The latter is usually preferred, not alone on account of the appearance, but because of a more decided flavor, which is rather bitter though not disagreeably so. It is canned in a very limited way.

DANDELIONS.

The dandelion plant is used as a greens or for salad and is sometimes put in cans like spinach, but very infrequently so.

KALE.

This plant is sometimes called sea kale, and thrives best in a light, dry soil, near salt water. It is considered very fine for greens and is occasionally canned. It is more often called or labeled spinach than kale.

CHAPTER LXXVII.

OLIVES, OATMEAL, SPAGHETTI, MACARONI, PLUM PUDDING, MINCE MEAT, CRACKED WHEAT, RICE, SOUPS.

OLIVES.

This ancient fruit is now produced in many parts of the world, and is usually gathered green and pickled in brine or in vinegar. In California it is extensively grown, but California olives are largely used for making olive oil and for canning when ripe.

The olive oil is pressed from ripe olives and canned ripe olives have been very generally introduced throughout the United States and liked by many in preference to the green pickled olives so generally known and used. Ripe olives are also imported in casks in brine from Europe. Olives are largely preserved in glass, either in brine or vinegar and the canning of this fruit is still in rather an unimportant quantity.

OATMEAL.

The canning of cooked oatmeal has never met with great popular favor in this country. It is a most convenient preparation and the process of canning is well adapted to give to oatmeal that thorough cooking which it requires, and the hermetically sealing of the product preserves the freshness of flavor and moist consistency of cooked oatmeal when it is properly prepared.

It is usually put in No. 2 and No. 3 cans and sold at a price which admits of a fair profit for both wholesale and retail dealers. When the time, fuel, wasted by scorching, and mistakes in cooking are taken into consideration, canned oatmeal is much cheaper than unprepared oatmeal to the housewife. Freedom from husks, black specks and foreign substances of all kinds and a good fairly firm consistency in the can, just about proper, when warmed by placing the can in hot

water, to use at once, without further preparation, are the points of excellence.

SPAGHETTI AND MACARONI.

The canning of spaghetti and macaroni has for its support the arguments and facts given pertaining to the canning of oatmeal, viz.: economy, cleanliness, proper cooking and preparation, convenience and superior flavor and methods of preparation.

These articles are usually prepared with tomato sauce, seasoned and slightly—very slightly—with garlic or onion juice. Manufacturers have succeeded in canning these articles in a highly palatable way, and they have a strong advantage over home cooking in being able to buy the materials in large quantities and in bulk so as to make canned spaghetti and macaroni a cheaper article than the housewife can provide from the same materials, and a scientifically prepared, cleanly, wholesome and most relishable preparation ready to use after being warmed by putting the can in hot water.

CRACKED WHEAT.

This article is prepared and canned similarly to oatmeal, except that it is not so heavily processed and has never attained the sale and popularity canned oatmeal has though equally as deserving.

CANNED RICE.

Prepared and cooked rice is canned plain, with tomato sauce, with sausages and in several other styles. These preparations all have that value and economy of preparation which is given to a food product by scientific methods and the skill of trained chefs.

The rice used should be of the best quality, and a close inspection of the canned product should be made for imperfections or foreign substances and for choice flavor.

PLUM PUDDING.

This article is canned in England and in the United States, but in very different styles. The English article is made with plums and by an entirely different recipe. Canned plum pudding in the United States is made without plums, but raisins and citron are substituted therefor.

This article is quite salable and popular and is extensively canned and used. It is packed in cans of a conical pyramidal shape so that the contents will slide out easily when the can is opened and the cans are usually equipped with patent opening keys. Plum pudding so prepared is a very rich desert, and a sauce to be used with it is also canned.

MINCE MEAT.

Mince meat is not largely canned, but its convenience and desirability is immediately seen. There is a great deal of very cheap mince meat sold in bulk in this country.

It is comprised of a few raisins, cloves, etc., a very little chopped meat and an overwhelming quantity of chopped apples.

There is, of course, great quantities of fine mince meat sold, but it usually comes in glass jars or in tin cans, No. 2 and No. 3.

Care should be shown in handling mince meat in glass, as it is not a good keeper, and it should be kept in a cool place and entirely away from the light and sunshine.

Canned mince meat is usually made of the very finest materials. The heavy falling off in consumption of wet mince meat in the past decade is atttributable to the use of poor materials, and the introduction of dry or evaporated mince meat.

CHAPTER LXXVIII.

CODFISH, CLAM CHOWDER, MACKEREL, HERRING.

CANNED CODFISH.

Canned codfish has become quite popular in a few years past as a substitute for the boneless salt codfish for many years and still packed in wood boxes, paper boxes, etc.

The canned codfish is made of mild cured codfish and gives the people a most desirable article, not too salt and not too fresh, but just about right.

It is carefully prepared, being absolutely boneless and entirely free from skin or any but beautiful solid white, flaky codfish.

It has been charged that other less aristocratic fish are used in canned codfish, in fact, one prominent cannery does not label its product codfish, but other packers deny the charge; however, if it is true, it is a fact that nice hake or haddock are about as good as codfish, and by some are even preferred.

Everything should be honestly labeled and sold, however, and my investigations lead me to assert that canned codfish or even canned hake is far more reliable than the various grades of fish packed in open boxes, exposed to contamination and decay.

In five years past, through the judicious and persistent advertising by one firm, canned codfish has come to be a well known and well liked staple article of food. It is entirely free from the uncleanly and unsanitary condition under which the bulk or boxed boneless codfish is handled.

Canned codfish may be safely kept and used all the year round, which is an advantage over the unsealed article, which cannot be handled or safely used in hot weather.

CLAM CHOWDER.

This article could be more consistently treated under the head of soups, but it has an individuality of classification which seems to entitle it to a place apart from soups. It is made from clams, the liquor from the clam shells, various vegetables, including usually potatoes, a small quantity of onion and crackers, and is seasoned with pepper, salt and butter. The clams used are the long clams and they are usually chopped and the black part excluded, though this is not always done, but should be.

It is usually packed and sold in No. 3 cans, though it is also put in No. 1, No. 2 and No. 10 cans.

There is a clam chowder that is packed in small sized cans and called condensed, but is can hardly be classed as so desirable as that which is ready for immediate use without dilution.

There is a tendency on the part of canners to use the cheaper materials too freely and be illiberal with the clams. In buying it is best to see that a fairly generous proportion of clams is used and that the chowder is rich and tasty, rather than thin, insipid and watery. In order to test it a can should be heated and tried, just as it is prepared and ready to go on the table.

In fact, a buyer in selecting and testing canned food should put himself in the consumer's place.

CANNED MACKEREL.

Fresh mackerel is canned in the United States in No. 1 and No. 2 cans. It is canned in France and elsewhere of very small sized fish in sardine style cans. It is highly desirable and meretorious as a canned article and in the writer's opinion holds its freshness and flavor when canned better than any other fish, salmon and sardines not excepted.

When it was first put on the market in this country in No. 1 and No. 2 cans it became immediately popular and there was such a demand for it that canners could not supply it. Then the catch of mackerel failed and grew smaller and unscrupulous packers began to put herring in cans and label them fresh mackerel, bluebacks, etc., etc.

This promptly killed the demand for canned mackerel, which goes to show that a lie and a fraud will ruin an industry as well as a reputation.

The canned herring was substituted for canned mackerel with some success for a few years, and then the demand for canned mackerel expired as the people would no longer buy the substitute or consent to be deceived.

Very little canned mackerel is now produced in the United States. It was for a while very extensively canned in No. 1 and No. 2 oval-shaped flat cans, and with tomato sauce, or mustard sauce, but the clutch of greed and fraud siezed this part of the industry and herring again masqueraded as mackerel and the people quit buying the fraudulent product.

Since the Pure Food and Labeling Law went into effect conditions have changed, and the frauds are no longer perpetrated, but the harm has been done, and it will take years to re-establish the demand for canned mackerel through a restoration of public confidence.

In buying canned mackerel, and in order to know that there is no substitution or admixture of other fish careful attention should be given to these points. The skin of the mackerel is without perceptible scales, and is striped laterally or across the fish, with dark stripes, the meat is almost white and of a solid texture, while the shape of the fish is heavy across the body in front of the dorsal or back fin and behind the gills, tapering sharply until the circumference of the fish just in front of the tail fin is very small and round rather than flat.

CANNED HERRING.

This article is extensively canned and in many styles and shapes of cans. It is not a very desirable fish for canning purposes having a flavor which is hard to describe and not very agreeable to the palate.

It is the great food fish of the ocean, and is furnished by nature in countless numbers. The fish is used in many parts of the world as a staple food resource. It is largely used in the manufacture of sardines on the Atlantic Coast of the United States, and the herring flavor, combined with the flavor of cotton seed oil, makes a combination which is especially distasteful to the educated palate.

Fresh herring when properly cleaned, cooked and highly seasoned, are regarded as good eating, and smoked herring are popular.

Canned herring in order to be palatable must be seasoned with mustard sauce, tomato sauce, or spiced.

It will be observed that in all styles of preparation the fish, though wholesome and nutritious, must be prepared, viz.: highly seasoned, smoked or with condiments in order to divest it of the "weedy" flavor which it possesses.

Many ocean fish seem to have that same flavor, which is by some attributed to the phosphorous which is prevalent in the chemical composition of fishes and is supposed to be imparted by certain kinds of food the fish consume at certain times of the year, as it has been observed that there are periods when or places where such fish are free from the flavor mentioned.

Canned fresh herring, without preparation, is a very slow seller, and as it can no longer be sold for mackerel it is suffering from the fraud practiced by its friends, though, when properly prepared, it is a good, cheap canned food; especially in mustard sauce or tomato sauce.

The meat of the herring is white and firm, with red variations or markings near the vertebra and other bones. The flavor of the sauce in which it is packed is important, and should be carefully inspected. Common, cheap mustard or tomato pulp used in the sauce give the product an abominable and disgusting flavor, instead of a relish, and should be guarded against.

CHAPTER LXXIX.

CANNED TUNA, TURTLE, FISH ROE.

CANNED TUNA.

The European tuna (or tunny) fisheries are located around the shores of the Mediterranean Sea, and are important and productive. The true tunny, which is a member of the mackerel family, frequents the northern coast of Sicily, and extensive fisheries are located there. This fish, which is pelagic or an inhabitant of the surface waters of the ocean far from shore, at certain seasons of the year approaches the shores, probably in pursuit of schools of sardines or herring, which appear to migrate at those times. The tunny grows to an enormous size, sometimes ten feet in length and weighing a thousand pounds. The tunny is canned in olive oil and is exported from the Mediteranean to all parts of the world. The flesh is very firm and solid, but somewhat dry, hence it is canned in oil and is justly regarded as a fine delicacy.

This same fish is found in other waters, sometimes on the Atlantic coast of North America, but more abundantly on the Pacific coast of the United States, where it is regarded as a grand game fish when caught with line and pole, but is seldom found there weighing more than four hundred pounds, in fact, such specimens are very rare.

There is another fish, however, of the mackerel species, known as the albacore (tuna) which has come into great popularity in the past few years. It is found on the Pacific coast and is caught and canned chiefly or altogether at present at points in California south of San Francisco. The albacore is a beautiful fish, trim-shaped like a

mackerel, with enormous muscular development along the vertebra and back. It is distinguished from the smaller sizes of tunny or tuna by long pectoral fins, which fold along its side, almost resembling those of the flying fish.

This fish is caught usually by hand line fishing methods, and with stout poles and lines, while they are feeding upon the schools of sardines. They seldom approach very close to shore, but are easily caught with sardine bait, when a school is found. They are found and caught from 10 to 80 pounds in size, seldom or ever larger.

This fish is now extensively canned on the Pacific Coast, and is processed in refined salad or cotton seed oil. The meat is as white as unspotted snow and the flavor of the fish more resembles that of the breast of chicken, though somewhat whiter, than any other article of food. It makes a superb salad and can be prepared in many other ways, and is considered by many superior to the breast of capon chicken, though much cheaper.

Manufacturers or canners furnish recipes in pamphlet form and printed upon the can labels for the preparation of this delicacy, and have by other intelligent methods of advertising brought it into such popularity that the demand is constantly greater than the supply.

The preparation of this fish is also conducted with great care, as it is drained entirely of blood, steam cooked, cooled, then all the skin and bones are carefully removed, and the white meat packed into cans sealed and processed, labeled and cased.

CANNED TURTLE.

The great green turtle is an inhabitant of the ocean. They prefer warm or tropical or semi-tropical waters and can be found in the Atlantic, the Gulf of Mexico and, in fact, in nearly all parts of the world. They grow to an enormous size, sometimes weighing one thousand pounds. They are amphibious, but seldom leave the water except to deposit their eggs in the sand, and then only for a short distance, as they are marine animals and are very awkward on land and almost helpless when assailed by an enemy. The favorite time for capturing them is when they at night have crawled out upon the sand to deposit their eggs, they are gregarious, and go in herds or schools. Turtle hunters turn them upon their backs and they cannot turn over.

When captured they are taken to the canneries, of which there are a number, killed, cleaned, cooked and the cans are filled with several kinds of meat, selected from various parts of the turtle, which animal is said to contain meat, in turn, resembling fish, flesh and fowl. The green turtle is a reptile, is oviparous and herbiverous, that is to say it produces its young from eggs hatched in the sand, and it feeds upon vegetable substances.

On land it is awkward and helpless, but in the water it is quick, powerful and swift, consequently, the pursuit of green turtles by harpooning or spearing them is a hazardous occupation, and the ordinary net or line and hook will not hold them.

Soup made from the meat of the green turtle is regarded as a rare delicacy, and on account of the difficulties attending its capture and canning, the article sells at a high price.

FISH ROE.

The roe or eggs of herring are canned extensively, and quite a business is done at points in Virginia and on the Chesapeake Bay in the article. Herring roe is a by product of the fisheries and as herring approach the shores and are most abundant in the spawning season, the roe is plentiful and cheap. It is highly regard by many as a food and delicacy.

Shad roe is also canned to a very limited extent.

Of the roe of the Sturgeon canned caviar is made. It is usually imported from Russia, but of late has become very expensive and scarce.

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...INDEX...

PAGE

Advance, or Future, Sales 21
A Model Business Organization 65
Apparent Costs and Real Costs 67
Apple Butter 197
Apple Sauce 196
Apples 95
Apricots 190
Arbitration and Arbitrators 174
Asparagus 82
Beans and Pork 105
Beans, Lima 70
Beans, Red Kidney 105
Beans, Stringless 63
Beets 107
Berries 110
Blackberries 100
Blueberries 110
Brokers, Canners, Wholesalers—Their Relation 147
Brokers' Usefulness, Affirmative 36
Brokers' Usefulness, Negative 38
Brokers—Whom They Represent 144
Brussels Sprouts 200
Business Leaks and Stealages 25
Buyers of Canned Foods 10
Canned Foods—Their Care 156
Canned Foods—Their History 13
Canned Food Statistics 122
Canned Meats 114
Canners, Brokers, Wholesalers—Their Relation 147
Cans, Standard Sizes 87
Caring for Canned Foods 156
Carrots 197
Cauliflower 198
Celery 199
Cherries 112

INDEX—CONTINUED.

PAGE

Clam Chowder 204
Clean, Economical, Wholesome 14
Clams 96
Codfish 203
Condensed Milk 115
Corn 42
Costs—Apparent and Real 67
Counter Displays 143
Crab Apples 196
Crabs 119
Cracked Wheat 202
Cranberries 194
Cucumbers 198
Currants 193
Dandelions 201
Dead Stock—How to Move It 158
Displays—Window, Counter and Salesroom 143
Distribution 185
Economical, Clean, Wholesome 14
Employment of Salesmen 57
Endive 200
Established Sizes of Cans 87
Expense and Use of Samples 33
Figs 195
Fish Roe 208
"Future" Sales of Canned Foods 21
Fruit Butters 197
General Information—Unclassified 181
Gooseberries 111
Grapes 120
Gumbo 116
Hard Work and Hard Play 40
Herring 205
History of Canned Foods 13
Hominy 102
How to Regulate Stocks and Purchases 78

INDEX—CONTINUED.

PAGE

How to Route and Ship Canned Foods....183
Information—Unclassified....181
Introducing Your Brand or Label....150
Jams....197
Jellies....197
Jobbers, Canners, Brokers—Their Relation....147
Kale....201
Kidney Beans—Red....107
Kraut....103
Labels—Jobbers' Name on....30
Labels—Packers' Name on....28
Laws—National and State Regarding Labeling....160
Leakers, Swells and Rusties....75
Leaks and Stealages in Business....25
Lima Beans....70
Links in Chain of Distribution....185
Lobster....93
Loganberries....196
Macaroni....202
Mackerel....204
Meats—Canned....114
Milk—Condensed....115
Mince Meat....203
Moving Slow or Dead Stock....158
Mushrooms....199
Nectarines....192
Oat Meal....201
Okra....116
Olives....201
Oysters....97
Packers' Labels....28
Peaches....85
Pears....92
Peas....16
Pineapple....89
Plum Pudding....202

INDEX—CONTINUED.

PAGE

Plums 113
Pork and Beans 105
Potatoes—Sweet 110
Private Labels 30
Prunes 192
Pudding, Plum 202
Purchase of Stock—How to Regulate 78
Pumpkin 104
Quinces 193
Raspberries 101
Red Kidney Beans 107
Rhubarb 118
Rice 202
Roe of Fish 208
Rusties, Swells and Leakers 75
Salesmen—Employment of 57
Salesmen's Selling Points 59
Salesroom, Counter and Window Displays 143
Salmon 50
Salsify 199
Samples—Use and Expense of 33
Sardines 72
Selling Points for Salesmen 59
Shipping and Routing Canned Foods 183
Shrimp 117
Soups 121
Spaghetti 202
Spinach 109
Speculating in Canned Foods 198
Squash 104
Statistics 122
Stealages and Leaks in Business 25
Stocks and Purchases—How to Regulate 78
Strawberries 110
Stringless Beans 63
Succotash 191

INDEX—CONTINUED.

PAGE

Sweet Potatoes 110
Swells, Leakers and Rusties..... 75
The Buyer 10
The Label and the Law..... 160
Terrapin 207
Tomatoes 47
Turnips 197
Tuna Fish 206
Turtle 207
Use and Expense of Samples..... 33
Usefulness of Brokers, Affirmative..... 36
Usefulness of Brokers, Negative..... 38
Wholesalers, Brokers, Canners—Their Relation..... 147
Wholesome, Clean, Economical..... 14
Whom Does the Broker Represent?..... 144
Window Displays 143

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. . . ILLUSTRATIONS . . .

OPPOSITE PAGE.

John A. Lee, the Author 6
A Scene in Baltimore 22
View at Canners' Convention 22
Ex-Presidents of Associations 23
A Display of Canned Tomatoes 54
Scene in a New York State Factory 54
Booth at Minnesota Canners' Meeting 55
Attractive Window Displays 70
A Swimming Pool for Factory Employees 71
A Class in Domestic Science 71
Outside and Inside Window Displays 102
Scenes in Meat Packing Establishments 103
A Novel Window and Neat Inside 135
A Load of Salmon for the Canneries 150
Scene in a New York State Cannery 151
Sealing Meat Cans Under Vacuum 151
Tomato Label as Recommended by N. C. A. 182
Corn Label as Recommended by N. C. A. 183

. . . ADVERTISERS . . .

Libby, McNeill & Libby 209
Calvert Lithographing Co 210
The C. M. Hilliard Co. 211
W. W. Bradford 211
Illinois Canning Co 212
Stevens Brothers Co 212
Wisconsin Pea Canners Co 213
Fredonia Preserving Co 214
Webster-Butterfield Co 214
American Can Company 215
Thomas Pineapple Co 216
The H. J. McGrath Company 216
Lee Brokerage Company 217

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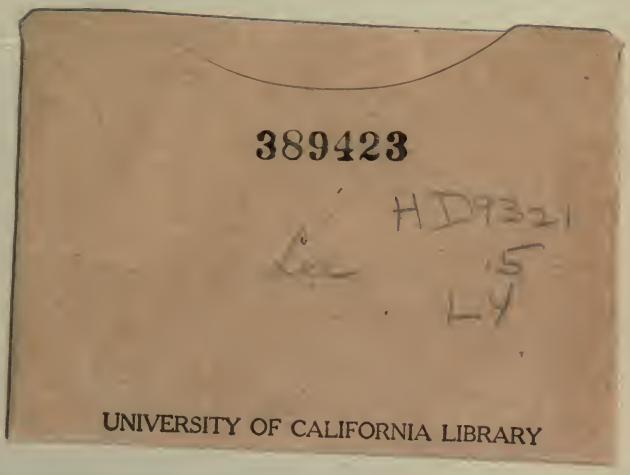
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